PLANET
Networking & Communication

# User's Manual

## H.264 36x Outdoor Speed Dome Internet Camera

► ICA-H652

www.PLANET.com.tw

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### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

## FCC Caution

To assure continued compliance, for example, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: ( 1 ) This device may not cause harmful interference, and ( 2 ) this device must accept any interference received, including interference that may cause undesired operation.

### Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

**Safety**

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

**CE Mark Warning**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**WEEE Regulation**

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste; they should be collected separately.

**Revision**

User's Manual for PLANET H.264 36x Outdoor Speed Dome Internet Camera

Model: ICA-H652

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Part No. EM-ICA-H652v2

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# Chapter 1. Product Introduction

## 1.1 Package Content

The contents of your product should contain the following items:

- Speed Dome Camera Unit x 1
- User's Manual CD-ROM x 1
- Quick Installation Guide x 1
- Terminal block x 3
- Optical Cover x 1
- M3/M5 Standard Screw x 4
- Water proof rubber x 1
- Lubricant x1
- Outdoor mount kit x 1
- Security Torx x 1
- Mini-pendant x 1
- 110/220 AC Power Adapter

Note

1. If any of the above items are missing, please contact your dealer immediately.
2. Using the power supply that is not included in Internet Camera packet will cause damage and void the warranty for this product.

## 1.2 Product Specification

| | |
|---|---|
| **Model** | ICA-H652 |
| **Camera** | |
| **Image device** | 1/4" Sony CCD sensor |
| **Lens** | f= 3.4 ~ 122.4 mm, Auto/Manual-iris/Focus<br>Mechanical IR Cut Filter<br>Angle of view (horizontal x vertical):<br>H: 57.8~ 1.7 Degree<br>V: 43.4 ~ 1.28 Degree |
| **Min Illumination** | 0.001 Lux (B/W) / 0.01 Lux (color) |
| **Effective Pixels** | D1: NTSC(720 x 480 pixel) / PAL(720 x 576 pixel) |
| **Pan/tilt/zoom** | |
| **Optical Zoom** | 36x |
| **Digital Zoom** | 1~12x variable |
| **Pan Degree** | 0 ~ 360 Degree continuous panning |
| **Tilt Degree** | -10 ~ 190 Degree |
| **Manual Speed** | 0.5 ~ 90 Degree / s |
| **Preset Point** | 256 |
| **Preset Accuracy** | 0.225 Degree |

| | |
|---|---|
| **Preset Speed** | 5~400 Degree / s |
| **Sequence** | 8 |
| **Auto Pan** | 4 |
| **Camera Cruise** | 8 |
| **Privacy Mask** | 16 (w/ motion detection window)<br>20 (w/o motion detection window) |
| **Proportional Pan & Tilt** | On/Off (Pan and tilt speed proportional to zoom ratio) |
| **Resume after Power loss** | Yes |
| **Home Function** | Preset, Sequence, Auto pan, Cruise |
| **Auto Flip** | Digital / Mechanical / Off |
| **Digital Slow Shutter** | On / Off |
| **Video** | |
| **Video Compression** | H.264 / M-JPEG |
| **Video Resolution** | D1: NTSC 720 x 480 / PAL 720 x 576<br>CIF: NTSC 352 x 240 / PAL 352 x 288 |
| **Horizontal Resolution** | 650 TVL |
| **Frame Rate** | Dual D1 @ 60fps |
| **Image Setting** | Auto Electronic Shutter: 1/1 ~ 1/10k sec<br>Auto White Balance: Auto/ Indoor/ Outdoor/ ATW<br>AGC: Auto / Manual<br>3D Digital Noise reduction<br>WDR<br>Color, sharpness<br>Mirror/Flip<br>Privacy Masks<br>Text, time and date overlay |
| **Streaming** | Simultaneously multi-profile streaming<br>Streaming over UDP, TCP, or HTTP<br>Controllable frame rate and bandwidth<br>Constant and variable bit rate (M-JPEG /H.264) |
| **Audio** | |
| **Audio Streaming** | Two-way Audio |
| **Audio Compression** | G.711 64kbps, G.726 32kbps, ADPCM |
| **Microphone** | External microphone input |
| **Audio Output** | Adjustable audio output gain |
| **Network and Configuration** | |
| **Standard** | IEEE 802.3 10Base-T<br>IEEE 802.3u 100Base-TX<br>IEEE 802.3at PoE Plus |
| **Protocol** | IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, ONVIF |
| **Security** | HTTPS / IP Filter / IEEE 802.1x |
| **Users** | 8 clients on-line monitoring at the same time |
| **System Integration** | |
| **Application Programming Interface** | Open API for software integration<br>ONVIF Compliant |

| | | |
|---|---|---|
| **Alarm Triggers** | **Input** | 4 Sets / 5V 10kΩ pull up |
| | **Output** | 2 Set / Relay output, max. 2A, DC 30V / 0.5A, AC 125V |
| **Alarm Reaction** | | Preset / Sequence / Auto Pan / Cruise |
| **Event Notification** | | HTTP / FTP / SMTP |
| **Network Failure Detection** | | Yes |
| **Environment** | | |
| **Power Requirement** | | AC24V ± 10%<br>IEEE 802.3at |
| **Power Consumption** | | 50 W (with heater) |
| **Operating Temperature** | | -40°C ~ 50°C (-40°F ~ 122°F) |
| **Operating Humidity** | | 10 ~ 90% (non-condensing) |
| **Weight** | | 2.3 kg (5.11 lb) |
| **Dimension (Φ x H)** | | 191.9 x 382.1 mm (7.5 x 11.1 in.) w/ Sunshield |
| **Protection Class** | | IP-66 outdoor classification, built-in fan and heater |
| **Heater** | | -7 degree C on / 3 degree C off |
| **Emission** | | CE / FCC / RoHS |
| **Connectors** | | 10/100Mbps Ethernet, RJ-45<br>AC power connector<br>Terminal block for 4 alarm input and 2 output<br>External MIC input / Audio out<br>Micro SDHC card (Max 32GB, Class 10)<br>Factory default reset button |

## 1.3 Overview

### Pan, Tilt and Zoom Capabilities for Wide Area Coverage

PLANET ICA-H652 Speed Dome Network Camera is designed for the most demanding video surveillance applications, with outstanding, full frame rate video in resolutions up to D1 and with optical zoom up to 36x. This camera supports H.264, and M-JPEG compression formats and delivers excellent picture quality in D1 resolutions at 60 frames per second (fps). Incorporating the progressive scan CMOS sensor from SONY, which is specially designed for surveillance applications, this camera provides high quality images and enable surveillance of a large area and great details when zooming in. With quick and reliable installation features, the cameras are ideal for stores, banks, warehouses, parking lots, airports and train stations, as well as city and perimeter surveillance.

### Day & Night Functionality

The ICA-H652 features an automatic, removable infrared-cut filter, which enables the camera to provide color video when there is sufficient light, and black/white video in dark conditions. The camera is able to maintain clear images 24 hours a day.

## Exceptional Image Quality

Together with powerful image processing attributes like Wide Dynamic Range and 3-Dimension Noise Reduction technology, the camera is able to filter the intense backlight surrounding a subject and remove noises from video signal. The result is that an extremely clear and exquisite picture quality can be produced even under any challenging lighting conditions.

## Advanced Event Management

The ICA-H652 also supports a number of advanced features that give the camera increased flexibility and capabilities, including auto-iris for improving the image quality to avoid over exposure, two-way audio function, microSD/SDHC card slot for local storage, powerful zoom and high-speed, and precision pan/tilt/zoom capabilities. The IP-66 protection cover enables an exceptional coverage of large areas and great details when zooming in.

## Flexible Installation and Power Functionality

The ICA-H652 incorporates Power over Ethernet Plus (IEEE 802.3at)/High PoE supply power that is transmitted to the camera via the network, eliminating the need for power cables and reducing installation costs. The ICA-H652 is ONVIF-compliant and therefore interoperable with other manufacturers' products.

This unique model also includes 64-CH central management software, thus making the ICA-H652 the indisputably top choice for reliable and high performance surveillance.

## 1.4 Product Features

➢ **Camera**

- 1/4" Sony CCD 650TV Line CCD sensor
- 3.4 ~ 122.4 mm vari-focal, auto-iris lens
- 0.001 lux minimum illumination
- Maximum resolution D1 (NTSC: 704 x 480 / PAL: 704 x 576)
- 36 x 12 zooming (36X optical, 12X digital) adjustment
- 360 degrees continuous PAN, Tilt (-10 ~ 190 degrees)
- Preset speed can get 5~400 / sec, and manual speed 0.5 ~ 90 degrees / sec
- Auto white balance and auto electronic shutter time (1/1 ~ 1/10k sec)
- Automatic gain control (AGC) for image-intensified camera
- Removable IR-cut filter for Day & Night function

➢ **Video / Audio**

- Simultaneous H.264 and M-JPEG video compression
- Simultaneous multi-stream support
- Max. resolution D1 at 60fps
- 3DNR to improve picture quality at low lux
- WDR Enhancement for enhancing visibility under extremely bright or dark environments
- Two-way audio support with enhanced audio quality

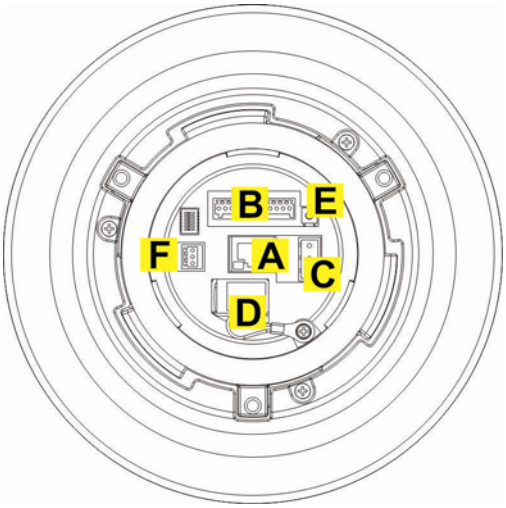
➢ **Network and Configuration**

- Compliant with IEEE 802.3at PoE Plus interface for flexible deployment
- Auto MDI/MDI-X supported
- Support for IPv6 in addition to the standard IP protocol version 4
- RTSP / UPnP / 3GPP / HTTPS protocols selectable
- DDNS and FTP uploading supports more alternatives in surveillance network

➢ **Easy Installation & Management**

- ONVIF compliant for interoperability
- 3GPP for 3G mobile remote applications
- Cam Viewer 3 central management software supported
- Motion Detection feature can monitor any suspicious movement in specific area
- 256 presets, tour is based on presets, speed and park time of presets can be set
- Cruise line: 8 group programmable lines, each cruise with 32 presets
- Digital Input/Output for integration with sensors and alarms
- IP-66 outdoor classification with heater and fan for rigorous environment
- Fan and heater both belong to fully-automatic intelligent control

## 1.5 Physical Details




| Item | Description |
|---|---|
| A | RJ-45 Connector |
| B | ALARM I/O |
| C | Power |
| D | Micro SD Card Slot |
| E | Factory Reset Button |
| F | Audio I/O |

# Chapter 2. Camera Setup and Cable Connections

## 2.1 System Requirements

To perform the IP Camera via web browser, please ensure your PC is in good network connection, and meet system requirements as described below for appropriate setup and good view quality.

| Items | System Requirement |
|---|---|
| **Personal Computer** | 1. Intel® Pentium® IV, 3 GHz or higher, Intel® Core2 Duo, 2 GHz or higher2. 1 GB RAM or more<br>3. AGP graphics card 64 MB RAM, DirectDraw |
| **Operating System** | Windows VISTA/ Windows XP/ Windows 7 |
| **Web Browser** | Internet Explorer 6.0 or later, Firefox, Chrome, Safari |
| **Network Card** | 10Base-T (10 Mbps) or 100Base-TX (100 Mbps) operation |
| **Viewer** | ActiveX control plug-in for Microsoft IE |

## 2.2 Verify the Contents inside Package Box

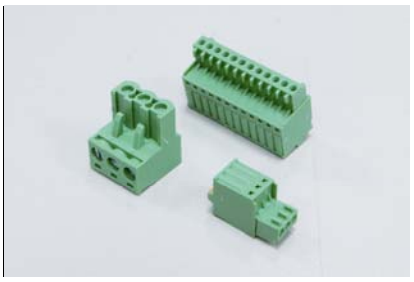
The package should contain the below items. If any item is missing or damaged, please contact the seller immediately.

**Dome Camera with Outdoor Mount Kit**

**Compact Pendent Mount**

**Data Cable**

**Waterproof Rubber**



**Terminal Block**

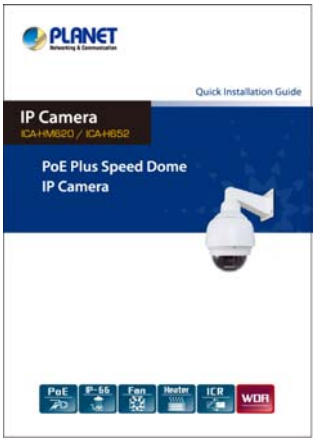
**Bracket Screws Kit**

**Security Tool**

**Lubricant**

**M3/M5 Standard Screw**

**M3/M5 Security Screw**



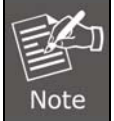

**Quick Installation Guide**

**CD-ROM**

**AC Power Adapter**

**Power Cord**

## 2.3 Physical Installation




1. During the installation, please take care and avoid crash. That may cause damage to the device or cause injury to the installer.
2. Please make sure the hardware is installed on the wall properly. If the hardware, it is possible that someone may be hurt. Please check the hardware again after the installation.
3. Please adjust the power switch according to the practical local power voltage. The wrong input voltage may cause damage to the device..

**STEP 1.**

Unpack the Dome Camera's package and take out the Dome Camera unit.

**STEP 2.**

Tighten the knob to remove the dome cover and the lens protector.

**STEP 3.**

Attach the dome cover to the camera body. Before doing that, apply some lubricant to the cover's water-proof rubber to make the installation process smoother.

| | |
|---|---|
| Note | The tiny protrusion on the dome cover must align with one of the four holes on the dome body. |

**STEP 4.**

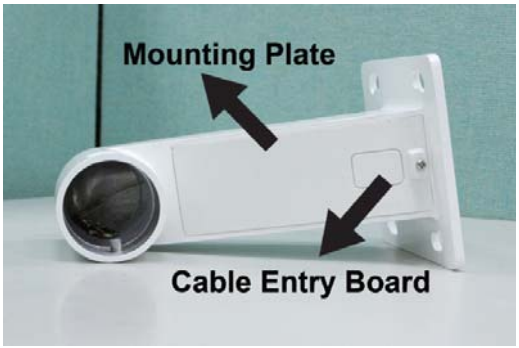
Gently push the dome cover downward with two hands on the side of it. DO NOT press the cover, as shown in the figure; this might cause damage to the camera body.

**STEP 5.**

Use the M3 screw to screw the dome cover and camera body together.

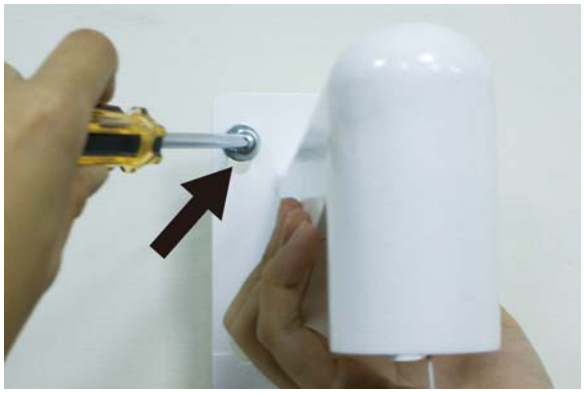
**STEP 6.**

Make a cable entry hole on the wall to recess the cables. Otherwise, users could push up the Cable Entry Board on the Compact Pendent Mount's Mounting Plate to place the cables, as shown in the photo below.




**STEP 7.**

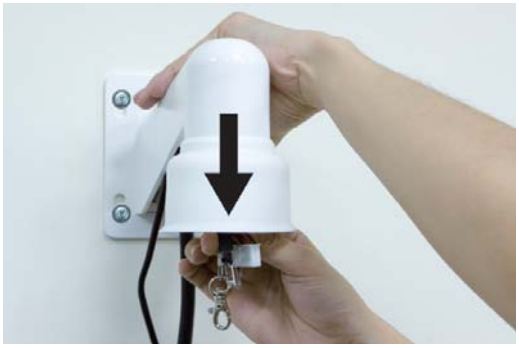
Fix the Compact Pendent Mount on the wall with proper screws and screw anchors. After this step, attach the Waterproof Rubber to the Outdoor Wall Mount.



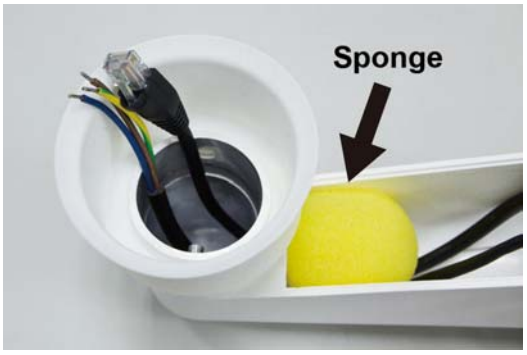
| | |
|---|---|
| Note | The screws and screw anchors are not in the package. |

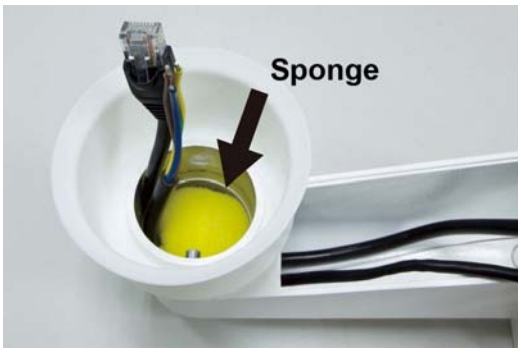
**STEP 8.**

Pass the network and power cable through the Compact Pendent Mount



| Note | 1. The network cable is not in the package.<br>2. Please block the cable entry hole with the supplied sponge to avoid insects entering the Pendent Mount. The sponge can be placed in two ways as shown in the illustrations below. |
|---|---|



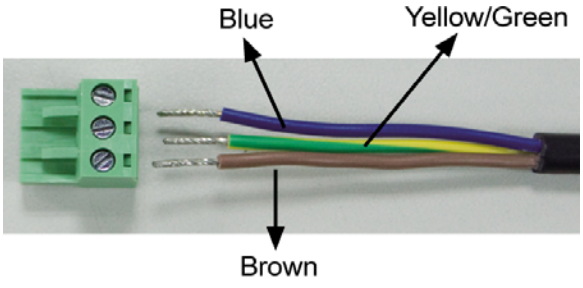



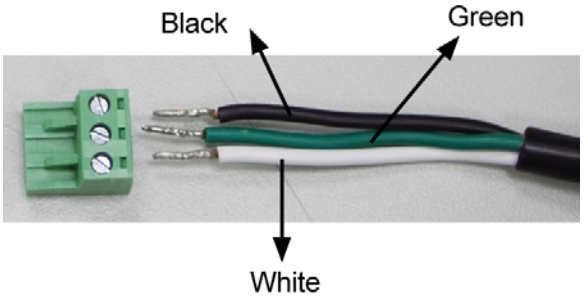

**STEP 9.**

Thread the cables through the Outdoor Mount Kit and join the Outdoor Mount Kit to the Compact Pendent Mount with the supplied screws and washers. Then adjust the Waterproof Rubber to the joint.

**Step 10**

Connect power wires of AC adapter with Power Input connector of data cable. Please check the color of power wire carefully, and screw that with connector properly.






| | |
|---|---|
| Note | Wrong wiring could cause permanently damage to the device. |

**STEP 11.**

Use the safety hook to hang the camera, and connect the cables to the Dome Camera.

**Step 12**

Assemble the Dome Camera to the Outdoor Mount Kit with the supplied M5 screw and washers.

| | |
|---|---|
| Note | Rotate the dome camera until the two screw holes match the dome camera with the outdoor mount kit. |

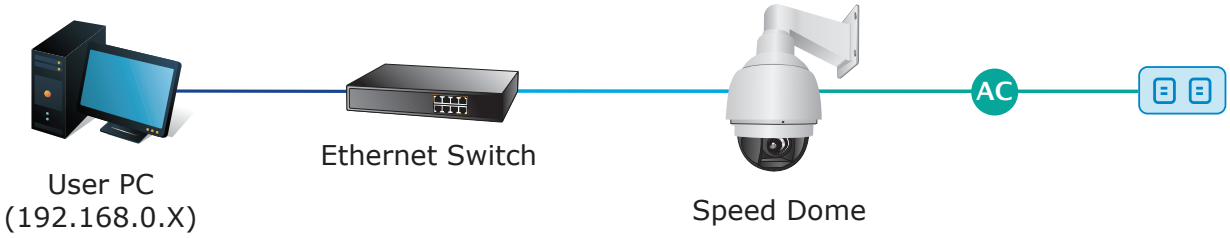
**Step 13.**

The adapter with the power cord attached is connected to a power outlet where the power voltage matches.

| | |
|---|---|
| Note | Use only the power adapter shipped with the unit to ensure correct functionality |

**STEP 14.**

Connect the network cable with switch. The speed dome can be configured without external power if connected to IEEE 802.3at High Power over Ethernet (PoE plus) switch.



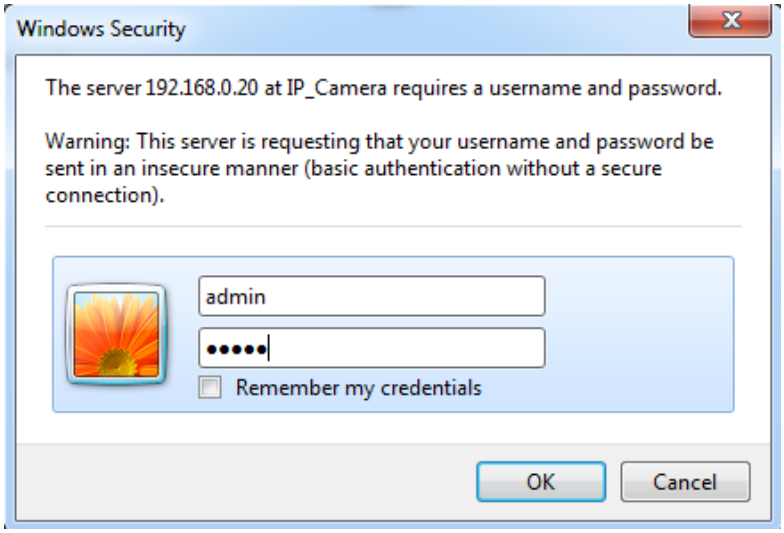

| | |
|---|---|
| Note | 1. For ICA-HM620, if there is a need to operate the **Heater**, please plug the AC 24V cable into the Camera's Power Connector to power up the Camera instead. Heater can only be powered by the 24VAC adapter.<br>2. For ICA-H652, the Heater can be powered by the 24VAC adapter or 60-watt PSE device. |

**STEP 15.**

Set your computer's IP address to 192.168.0.x, where x is a number between 1 and 253 (except 20 which is being used for the camera by default). If you don't know how to do this, please ask your network administrator.

**STEP 16.**

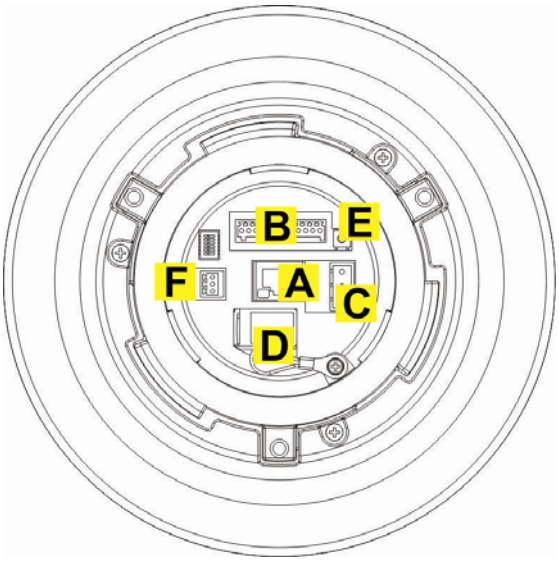
Use web browser (Internet Explorer 6.0 or above) to connect to **192.168.0.20** (type this address in the address bar of web browser). You'll be prompted to input user name and password: **admin** and **admin**


Windows Security
The server 192.168.0.20 at IP_Camera requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

## 2.4 Dome Camera Setups

Before connecting the IP Camera to other devices of IP Surveillance system, please complete the IP Camera's ID and communication switch settings. These switches are located on the bottom of the IP Camera.

### 2.4.1 Switch/Connector Definition




| Item | Description |
|---|---|
| A | RJ-45 Connector |
| B | ALARM I/O |
| C | Power |
| D | Micro SD Card Slot |
| E | Factory Reset Button |
| F | Audio I/O |

Note

DO NOT change the Speed Dome IP Camera's Communication Switch factory default settings.

### 2.4.2 Communication Switch Setting

| Communication Switch | SW | Description | Default |
|---|---|---|---|
| | SW 1 | Reserved | OFF |
| | SW 2 | Reserved | OFF |
| | SW 3 | Reserved | OFF |
| | SW 4 | Reserved | OFF |
| | SW 5 | Default PTZ setting, not include IP card | OFF |
| | SW 6 | Reserved | OFF |



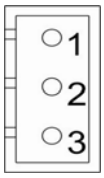
Please do not change the default setting without qualified specialist or supplier's notice.

## 2.5 Power & Audio Connector Definition

Please refer to the illustrations below to connect power cord through the supplied power adaptor, and set up the audio according to the audio pin definition.

### 2.5.1 Connecting Power

Please refer to the illustrations below to connect power cord through the supplied power adaptor.

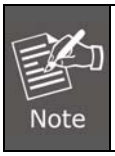



| Pin | Definition |
|---|---|
| 1 | AC 24_1 |
| 2 | FG |
| 3 | AC 24_2 |

To power up the Camera, users could choose either High power over Ethernet or AC 24V. To use High power over Ethernet, please connect the Ethernet cable to the Camera's Ethernet Port and plug the other end of the cable into an IEEE 802.3at 60W High Power over Ethernet (HPoE) injector. To use AC 24V, please plug the AC 24V cable into the Camera's Power Connector to power up the Camera.

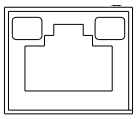
### 2.5.2 Connecting Ethernet Cable

Use of Category 5 Ethernet cable is recommended for network connection; to have best transmission quality, cable length shall not exceed 100 meters. Connect one end of the Ethernet cable to the RJ-45 connector of the network Speed Dome Camera, and the other end of the cable to the network switch or PC.




In some cases, you may need to use an Ethernet crossover cable when connecting the network Speed Dome Camera directly to the PC.

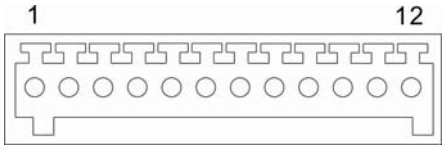
Check the status of the link indicator and activity indicator LEDs; if the LEDs are unlit, please check LAN connection.



| LED Color | Definition |
|---|---|
| Green Link | When lit, it indicates good network connection. |
| Orange Activity | Light flashes for network activity indication. |

### 2.5.3 Applying Alarm I/O

The network Speed Dome Camera supports 4 digital alarm inputs and 2 digital alarm outputs. Please make sure the alarm connections are properly wired before starting to configure alarm related settings on this "Application" page. Please refer to the pin definition table below for alarm system wiring.

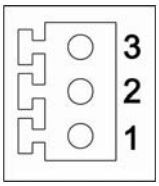



| Pin | Definition |
|---|---|
| 1 | ALARM_OUT_NO_1 |
| 2 | ALARM_OUT_NC_1 |
| 3 | ALARM_OUT_COM_1 |
| 4 | GND |
| 5 | ALARM_OUT_NO_2 |
| 6 | ALARM_OUT_NC_2 |

| Pin | Definition |
|---|---|
| 7 | ALARM_OUT_COM_2 |
| 8 | GND |
| 9 | ALARM_IN_4 |
| 10 | ALARM_IN_3 |
| 11 | ALARM_IN_2 |
| 12 | ALARM_IN_1 |

### 2.5.4 Applying Audio

Please refer to the illustrations below to set up the audio according to the Audio pin definition.



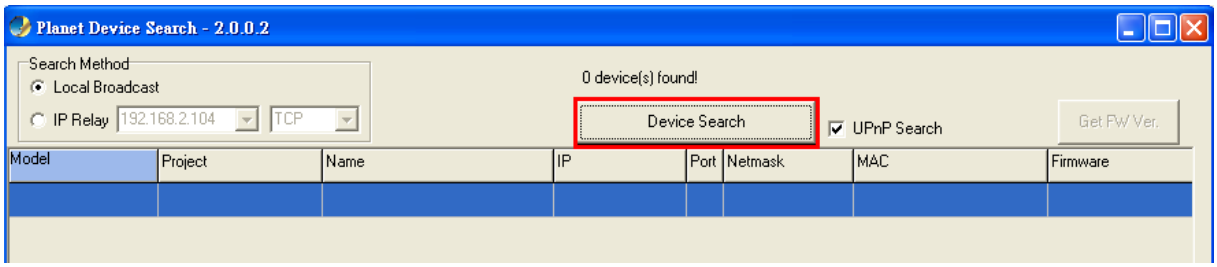

| Pin | Definition |
|---|---|
| **1** | LINE_OUT |
| **2** | GND |
| **3** | LINE_IN |

# Chapter 3. Accessing Camera

For initial access to the IP Camera, users can search the camera through the installer program: DeviceSearch.exe, which can be found in “Device Search” folder in the supplied CD.

## 3.1 Device Search Software Setup

**Step 1:** Double click on the program **Planet Device Search.exe** (see the icon below); its window will appear as shown below. Then click the “Device Search” button.

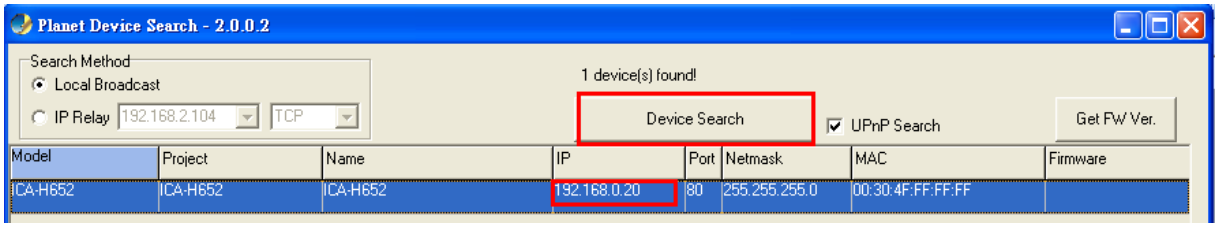



**Step 2:** The security alert window will pop up. Click “Run” to continue.

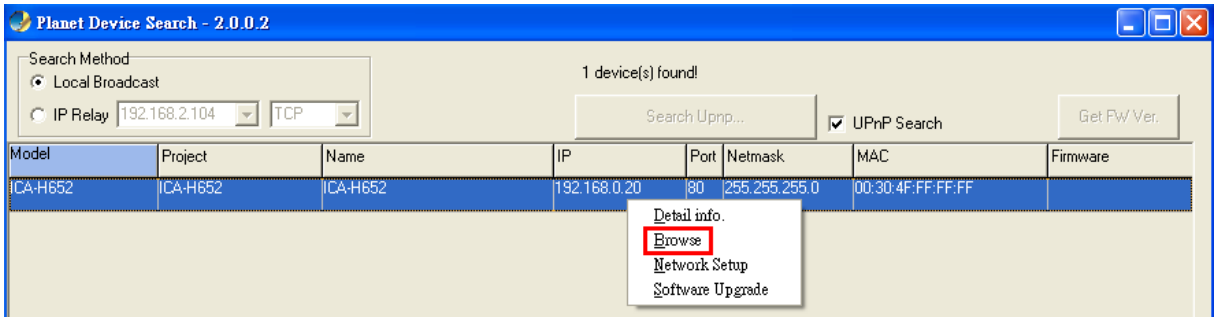
Open File - Security Warning
The publisher could not be verified. Are you sure you want to run this software?
Name: Planet Device Search.exe
Publisher: Unknown Publisher
Type: Application
From: 192.168.0.71
Run
Cancel
This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust.
How can I decide what software to run?

## 3.2 Device Search

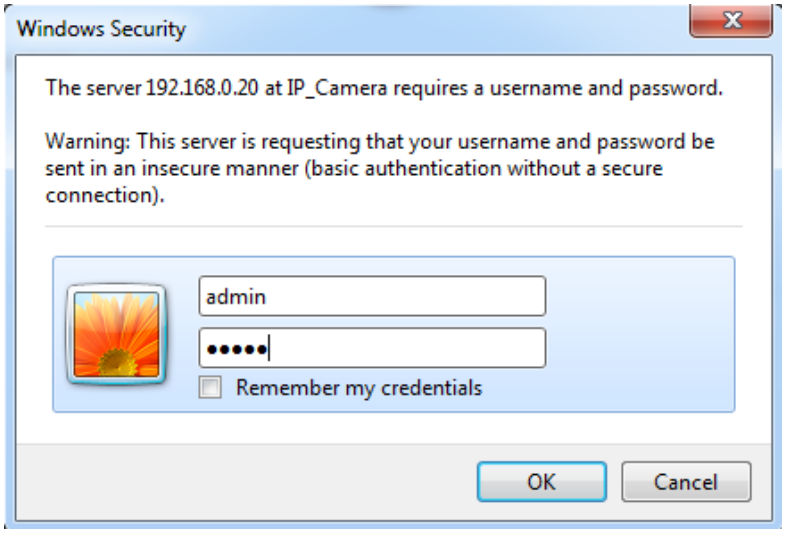
**Step 3:** Click “Device Search” again, and all the IP devices found will be listed on the page, as shown in the figure below. The IP Camera’s default IP address is: **192.168.0.20**.



**Step 4:** Double click or right click and select “Browse” to access the camera directly via web browser.




**Step 5:** Then the prompt window of request for entering default username and password (as shown below) will appear for logging in to the IP Camera.


Windows Security
The server 192.168.0.20 at IP_Camera requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

The default login ID and password for the Administrator are:

| Login ID | Password |
|---|---|
| **admin** | **admin** |

Note

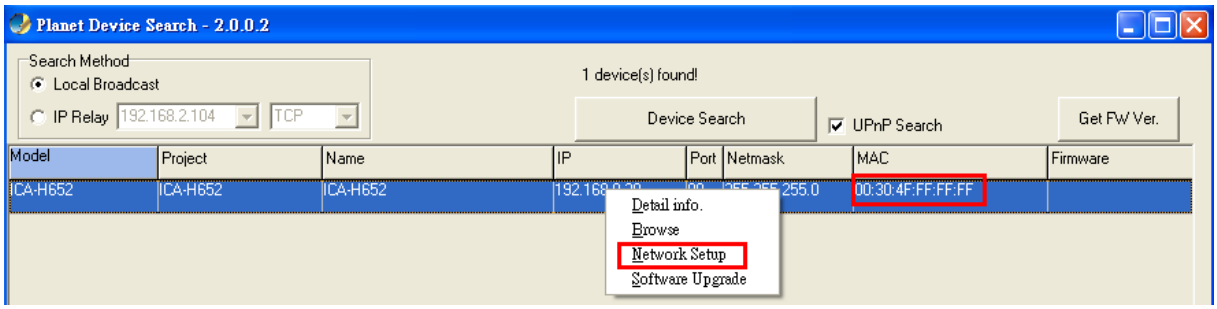
ID and password are case sensitive. It is strongly advised that administrator’s password be altered for the security concerns. Refer to section Security for further details.

Additionally, users can change the IP Camera’s network property, either DHCP or Static IP, directly on the device found list. Refer to the following section for changing the IP Camera’s network property.

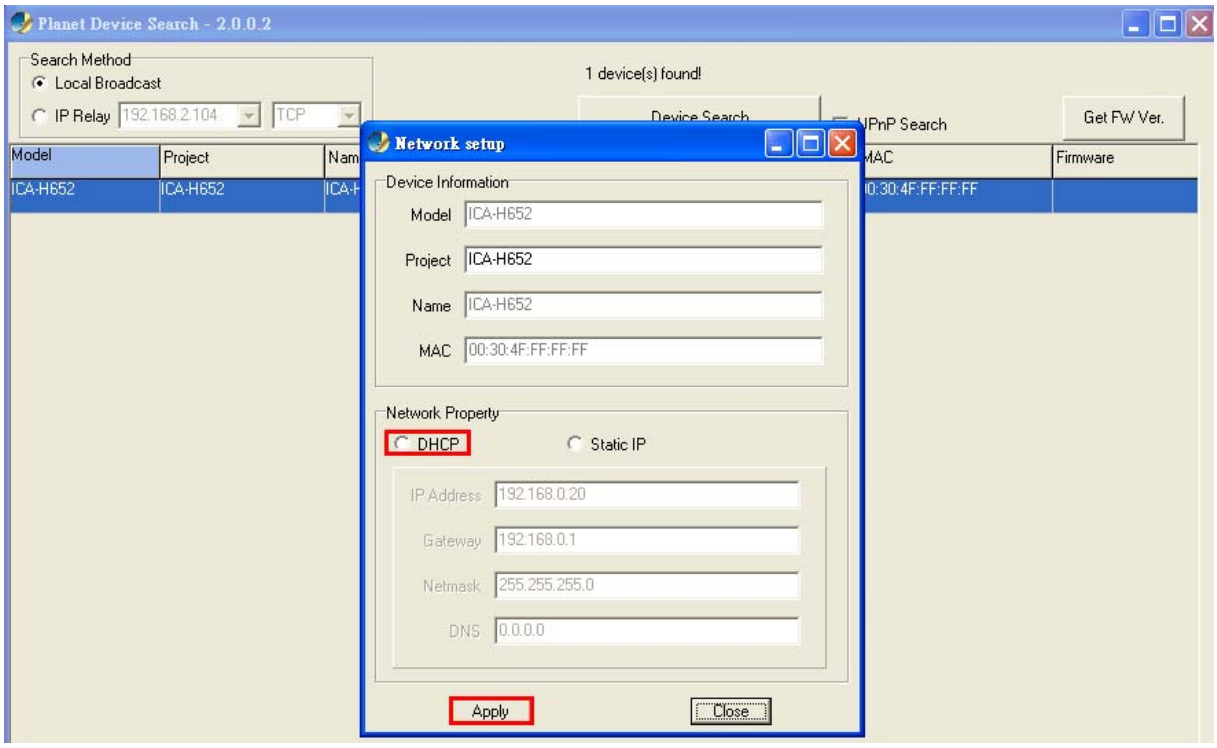
## 3.3 Example of Changing IP Camera’s Network Property

Users can directly change an IP Camera’s network property, e.g. from static IP to DHCP, on the device found list. The way to change the IP Camera’s network property is specified below:

**Step 1:** On the device found list, click on the IP Camera that you would like to change its network property. On the selected item, right click and select "Network Setup." Meanwhile, record the IP Camera's MAC address for future identification.

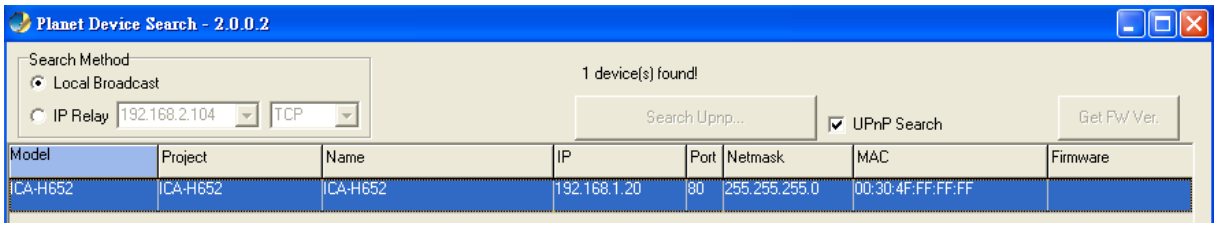



**Step 2:** The "Network Setup" page will come out. Select "DHCP," and press "Apply" button as shown below:




**Step 3:** Click "OK" on the Note of setting change. Wait for one minute to re-search the IP Camera.

**Step 4:** Click the “Device Search” button to search all the devices. Then select the IP Camera with the correct MAC address. Double click on the IP Camera, and the login window will come out.



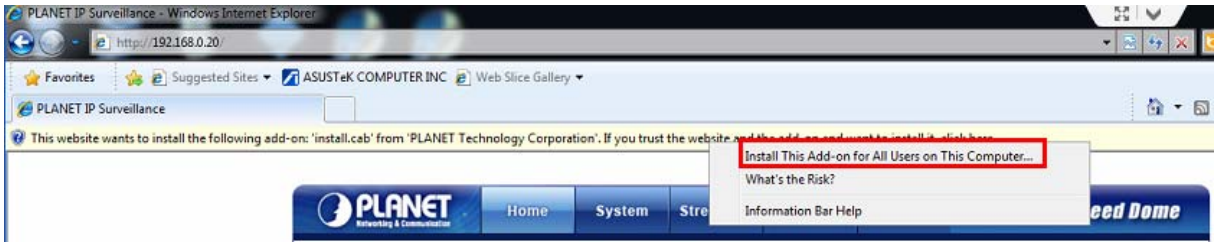

**Step 5:** Enter User name and Password to access the IP Camera.

## 3.4 Installing DC Viewer Software Online

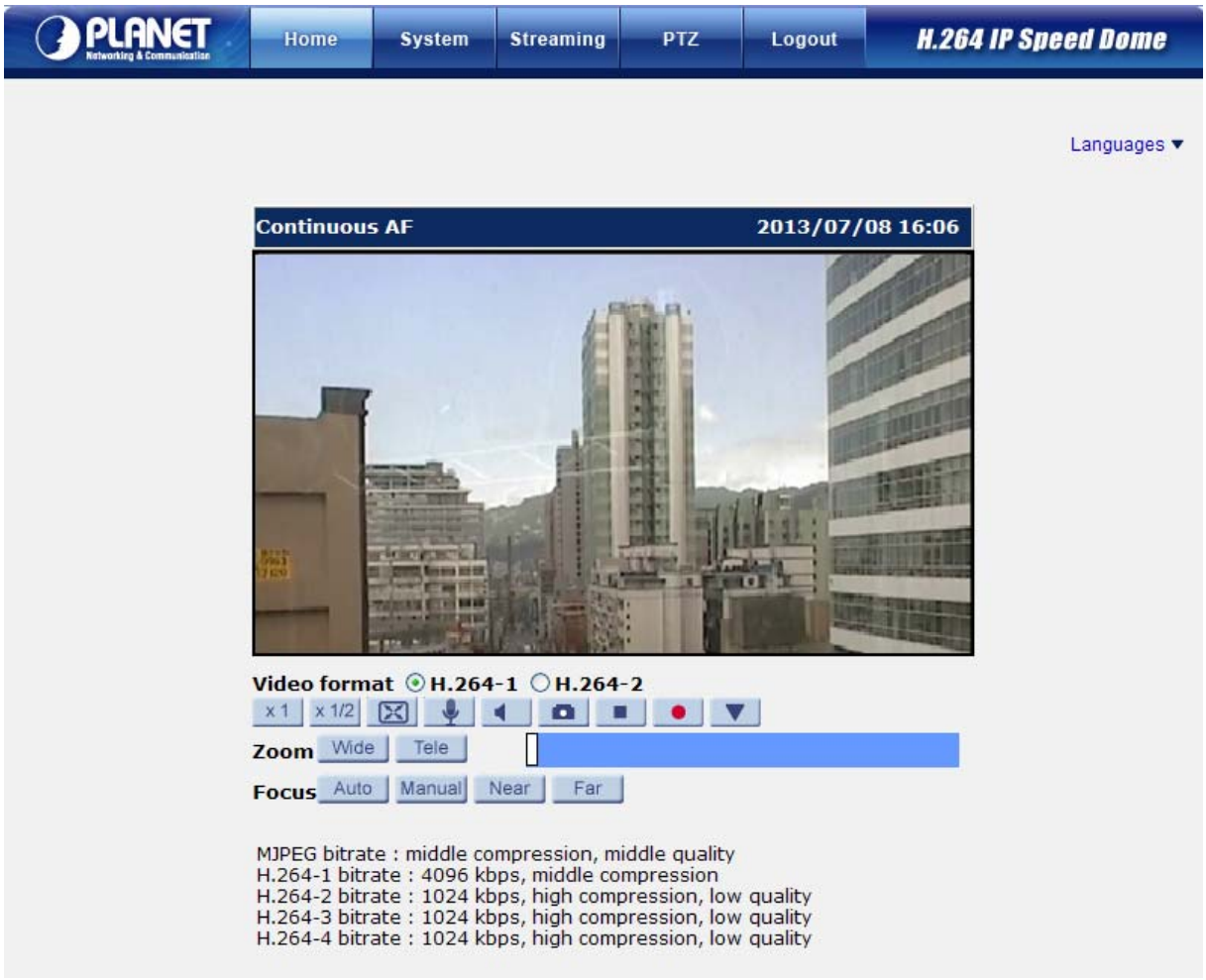
For the initial access to the IP Camera, a client program, DC Viewer, will be automatically installed to your PC when connecting to the IP Camera.

If the Web browser doesn't allow DC Viewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (see Appendix B: Internet Security Settings) to continue the process.

The Information Bar (just below the URL bar) may come out and ask for permission to install the ActiveX Control for displaying video in browser (see the figure below). Right click on the Information Bar and select "**Install This Add-on…**" to allow the installation.


PLANET IP Surveillance - Windows Internet Explorer
http://192.168.0.20/
Favorites
Suggested Sites
ASUSTeK COMPUTER INC
Web Slice Gallery
PLANET IP Surveillance
This website wants to install the following add-on: 'install.cab' from 'PLANET Technology Corporation'. If you trust the website
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
PLANET
Home
System

Then the security warning window will pop up. Click "Install" to carry on software installation. Click "Finish" to close the DC Viewer window when download is finished. Once logging in to the IP Camera is done , users will see the Home page as shown below:




## 3.5 Administrator / User Privileges

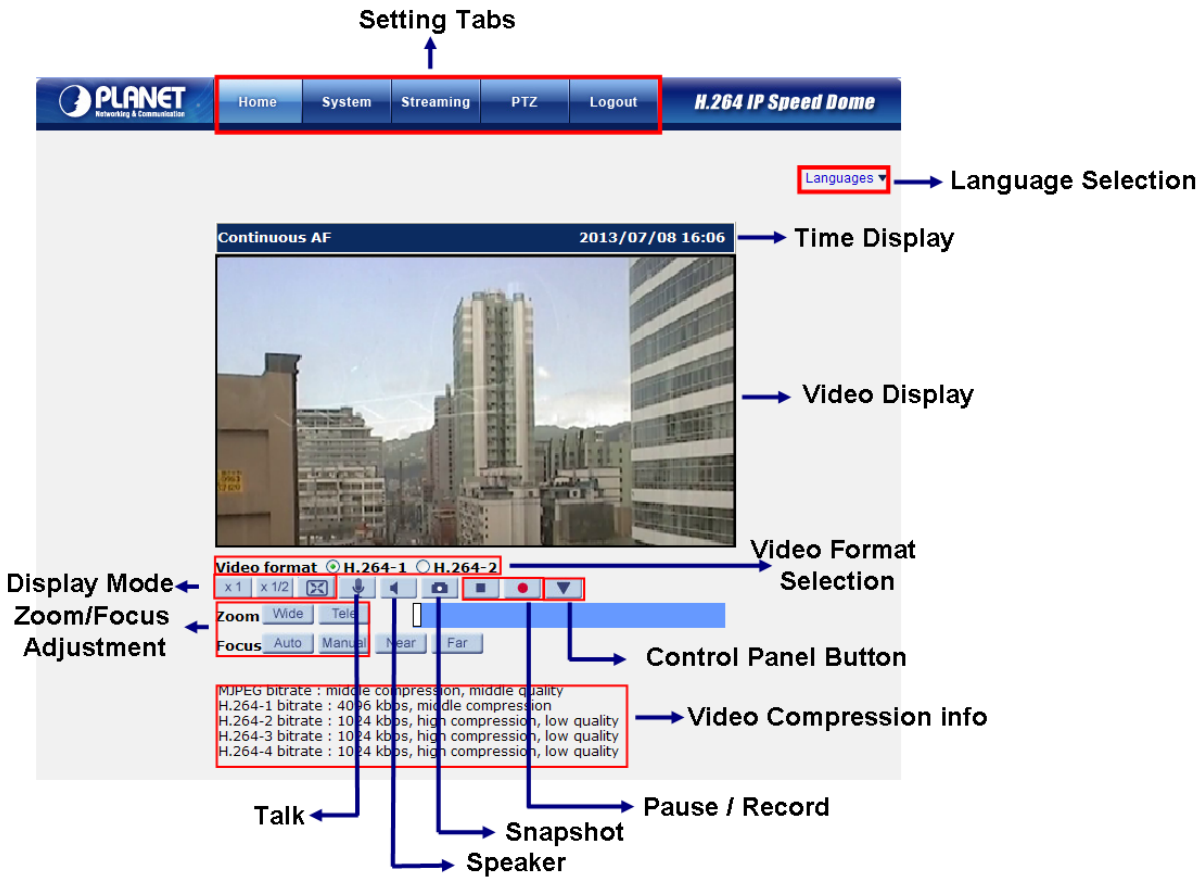
"Administrator" represents the person who can configure the IP Camera and authorize user's access to the camera; "User" refers to whoever has access to the camera with limited authority, i.e. entering Home and Camera setting pages.

# Chapter 4. Configuration & Operation

The IP Camera is provided with a user-friendly browser-based configuration interface, and a free bundled CV3L (Cam Viewer Three Lite Management System) for record and playback video. In this chapter, information about main page introduction, system related settings and camera settings will be described in details.

## 4.1 Browser-based Viewer Introduction

The figure below shows the Home page of the IP Camera's Viewer Window.




There are five tabs: Home, System, Streaming, PTZ and Logout on the top of the viewer window.

**Home**

Users can monitor live video of the targeted area.

**System setting**

The administrator can set host name, system time, root password, network related settings, etc. Further details will be interpreted in section 4.3 System Related Settings.

**Streaming setting**

The administrator can modify video resolution and rotate type and select audio compression mode on this page.

**PTZ setting**

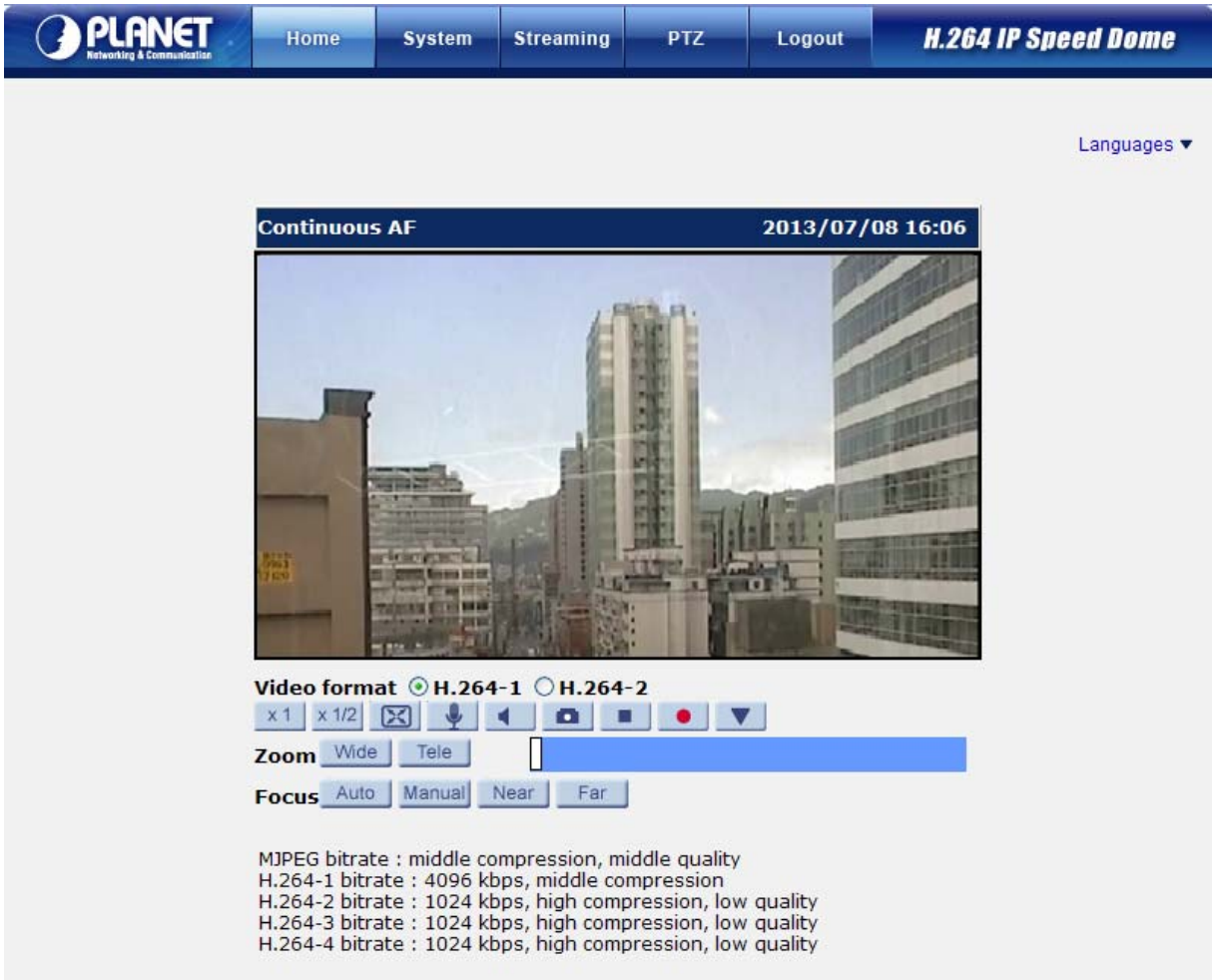
Users can adjust various camera parameters such as Exposure, White Balance, Backlight Compensation, etc., and program functions include Preset, Cruise, Auto Pan, Sequence, etc.

**Logout**

Click on the tab to re-login the IP Camera with another username and password.

## 4.2 Home Page

On the Home Page, users can view live video and operate Pan/Tilt/Zoom (PTZ) function. Additionally, users can select a video display format and image display size and adjust zoom ratio/focus length through related function buttons. All of these functions are described as follows:



**Multiple Languages Support**

Multiple languages, including English, French, German, Italian, Korean, and Simplified Chinese for the viewer window interface, are supported.

**Digital Zoom Control**

In the full screen mode, users can implement digital PTZ by rotating the mouse wheel (for zoom in / out), and drag the mouse into any direction.

**Screen Size Adjustment**


Image display size can be adjusted to x1/2 and full screen via the related buttons. To switch between the normal view mode and full screen view mode, users can also move the cursor to the live video pane and right-click; then the tab Normal View / fullscreen will display over the video pane as shown in the figure below. Left click on either the "**Normal View**" or "**Full screen**" tab for setting image display mode.

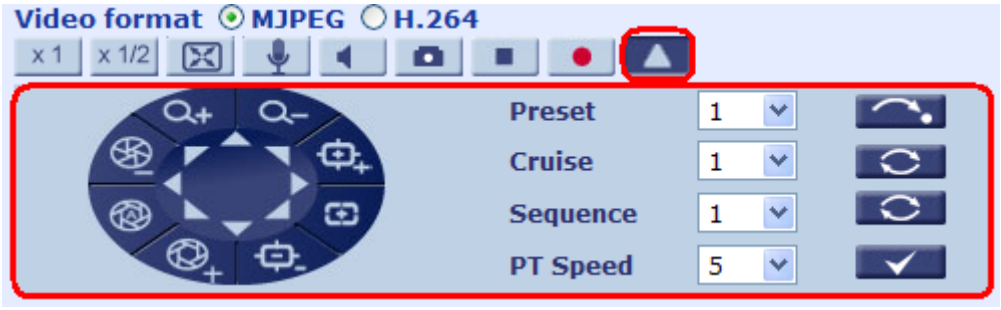
**Pan/Tilt Control**

Users can implement pan/tilt control by first moving the cursor to the live video pane; then left click and drag the pointer in any direction.

**Optical/Digital Zoom Control**

In Normal View display mode, users can implement zoom in/out by first moving the cursor to the live video pane and then rotate the mouse wheel. As in Full Screen mode, users can directly rotate the mouse wheel to zoom in/out on the image. Digital zoom is only available when the function is activated and which is set on "Camera-Misc1" page under the "PTZ" tab; see section 4.5.10 Camera - Miscellaneous Setups Menu 1 for details. When the camera reaches the limit of its optical range, it will automatically switch to digital zoom.

Furthermore, after clicking the <Control Panel> Button, the Control Panel will be shown as follows:.



**Control Panel**

- **Pan & Tilt Direction Control**

  This button on the Control Panel allows users to control the Camera with browser viewers other than IE.

- **Iris Control**

  Click on the buttons **(Auto Iris/ Iris+/ Iris-)** to adjust the Iris parameters.

- **Zoom**

  Click on the buttons **(Zoom In/ Zoom Out)** to zoom in or zoom out.

- **Focus**

  Click on the buttons **(Auto Focus/ Focus Near/ Focus Far)** to adjust the focus near, far or automatically.

**Run Preset/ Cruise/ Sequence**

After setting up the Preset/ Cruise/ Sequence lines according to PTZ Settings, select a Preset/ Cruise/ Sequence line and start it by clicking on the <Run> button ( ).

**PT Speed (1~10)**

Set a number between 1 and 10 as the PT Speed every time users pan or tilt the Camera via the Pan & Tilt Direction Control Panel. 1 is the slowest, 10 is the fastest.

**Set Center Mode**

Right click on the Live Video Pane and select <Set Center Mode>. Then users can position the target area in the center of the Live Video Pane automatically by clicking on the point of interest. In <Set Center Mode>, right click on the Live Video Pane again and select <Set Emulated Joystick Mode> to return to control the Camera direction by left clicking and dragging the pointer  on the Live Video Pane.

**Talk** (on / off)

Talk function allows the local site talks to the remote site. Please refer to section 4.3.2 Security: Add user > Talk/Listen for further details. This function is only open to “User” who has been granted this privilege by the Administrator.

**Snapshot**

Press the button, and the JPEG snapshots will automatically be saved in the appointed place. The default place of saving snapshots is: C:\. To change the storage location, please refer to section 4.3.9 Snapshot for further details.

**Speaker**

Press the button to mute/activate the audio.

**Video Pause / Restart**

Press the stop button to disable video streaming, the live video will be displayed as black. Press the restart button to show the live video again.

**Recording**

Press the button to save video recordings from the Live View to the specified location.

**Zoom Adjustment**

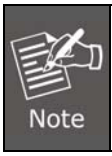
Click on the buttons wide/ tele to control zoom in/out. Move the cursor closely onto the zoom adjustment bar and click on the desired position to change the room ratio.

**Focus Adjustment**

- **Auto Focus (Continuous AF):**
  Click on the "**auto**" button to enable AF mode. In this mode, the camera will keep in focus automatically and continuously regardless of zoom changes or any view changes. The Focus status will also be displayed above the live video pane as shown below.
- **Manual Focus:**
  Click on the "**manual**" button, and users can adjust focus manually via "**near**" and "**far**" buttons. The status will also be displayed above the screen.
- **Near / Far buttons:**
  Click on the "**manual**" button first, and users can adjust focus manually via "**near**" and "**far**" buttons. The status will also be displayed above the screen.

## 4.3 System Related Settings

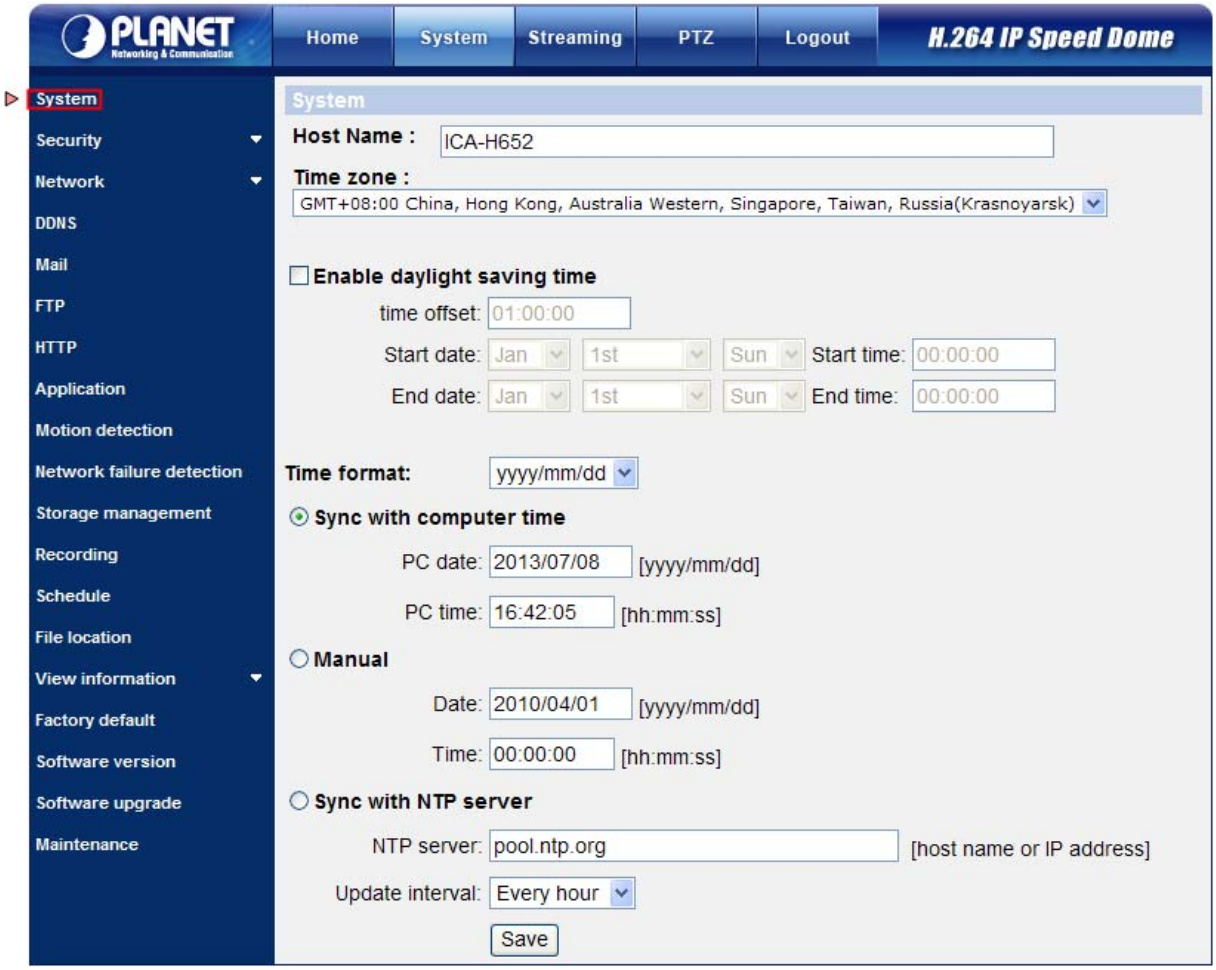
The figure below shows all categories under the "**System**" tab. Each category in the left column will be explained in the following sections.




The "System" configuration page is only accessible by the Administrator.

### 4.3.1 Host Name and System Time Setting

Press the first category: <System> in the left column; the page is shown below.




**Host Name**

The name is for camera identification. If Motion Detection function is enabled and is set to send alarm message by Mail/FTP, the host name entered here will display in the alarm message.

**Time Zone**

Select the time zone you are in from the drop-down menu.

**Enable Daylight Saving Time**

To enable DST, please check the item and then specify time offset and DST duration. The format for time offset is [hh:mm:ss]; for instance, if the amount of time offset is one hour, please enter “01:00:00” into the field.

**Sync with Computer Time**

Select the item, and video date and time display will synchronize with the PC’s.

**Manual**

The Administrator can set video date, time and day manually. Entry format should be identical with that shown next to the enter fields.

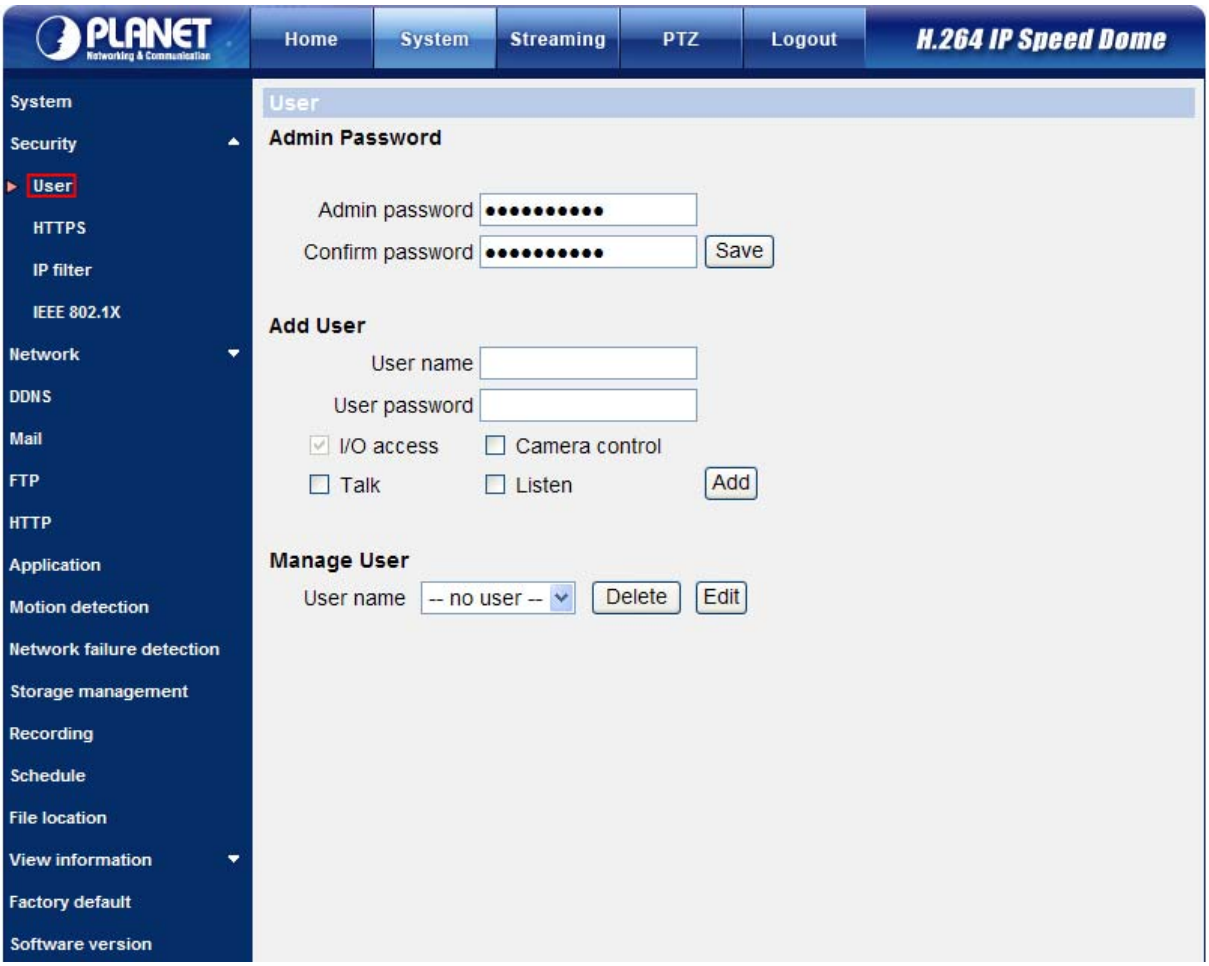
**Sync with NTP server**

Network Time Protocol (NTP) is an alternate way to synchronize your camera's clock with an NTP server. Please specify the server you wish to synchronize in the enter field. Then select an update interval from the drop-down menu. For further information about NTP, please see the web site: **www.ntp.org**.

### 4.3.2 Security

Click the category: <Security>, and the page is shown in the figure below.

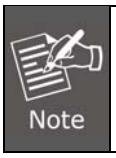
#### 4.3.2.1 User




**Root password**

Change the administrator's password by inputting the new password in both text boxes. The input characters/numbers will be displayed as dots for security purposes. After clicking <Save>, the web browser will ask the Administrator for the new password for access. The maximum length of the

password is 14 digits.




The following characters are valid: A-Z, a-z, 0-9, !#$%&'-.@^_~.

**Add user**

Type the new user's name and password and click <Add> to add the new user. Both user name and password can be up to 16 characters. The new user will be displayed on the user name list. There is a maximum of twenty user accounts. Each user can be assigned to the privileges of **"Camera control"** and/or **"Listen"**.

- **I/O access**

This item supports fundamental functions that enable users to view video when accessing to the camera.

- **Camera control**

This item allows the appointed User to change camera parameters on the Camera Setting page.

- **Talk / Listen**

Talk and Listen functions allow the appointed user in the local site (PC site) communicating with, for instance, the administrator in the remote site.

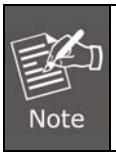
**Manage User**

**Delete user**

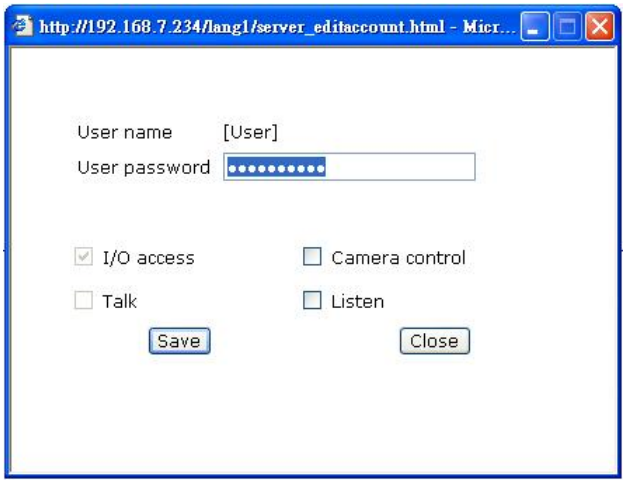
To delete a user, pull down the user list, and select the user name you wish to delete. Then click <Delete> to remove it.

**Edit user**

Pull down the user list and select a user name. Click <Edit> to edit the user's password and privilege.

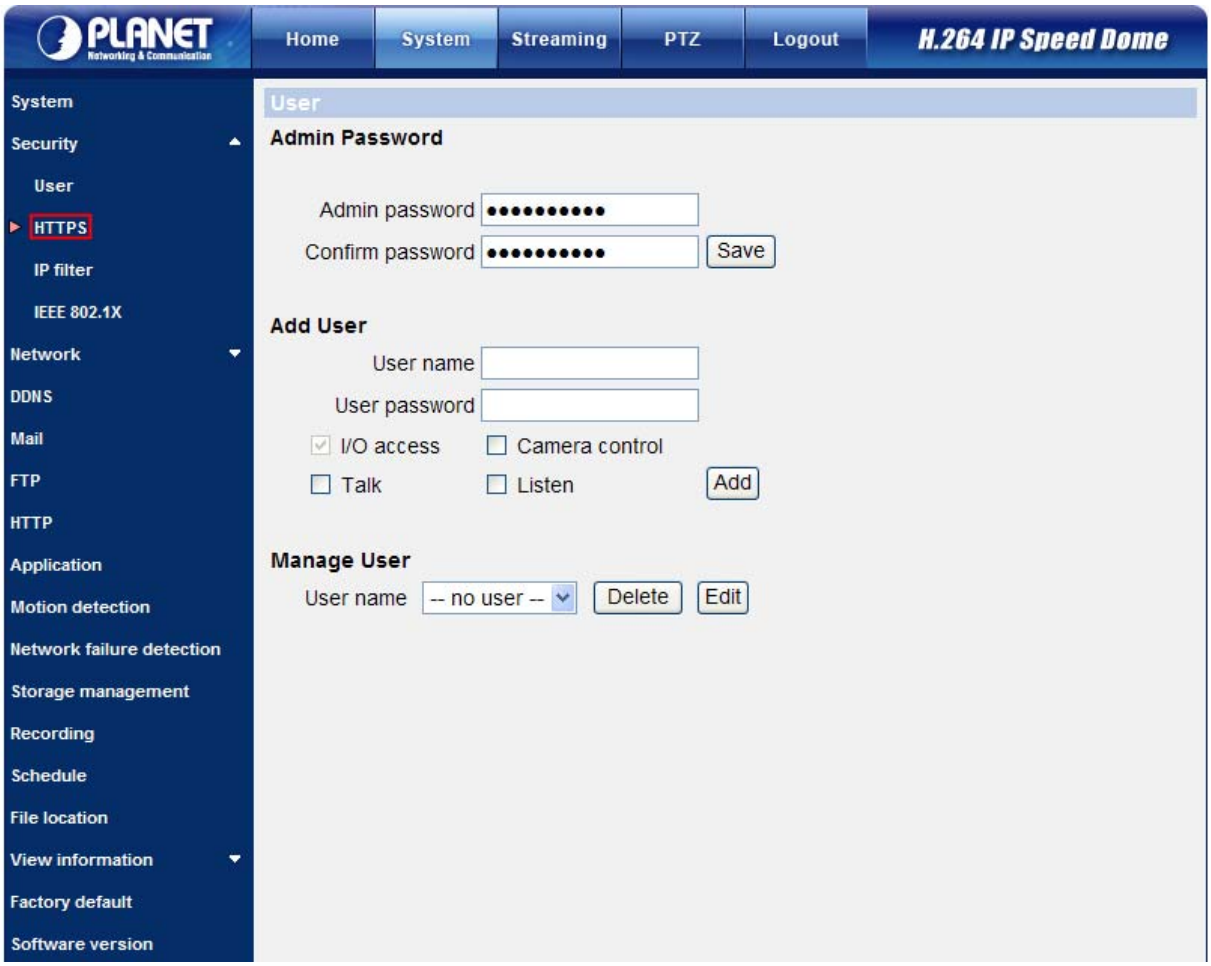



It is required to enter the User password as well as select the function open to the user. When finished, click <Save> to modify the account authority.




#### 4.3.2.2 HTTPS

The HTTPS setting can be found under this path: System> Security> HTTPS.

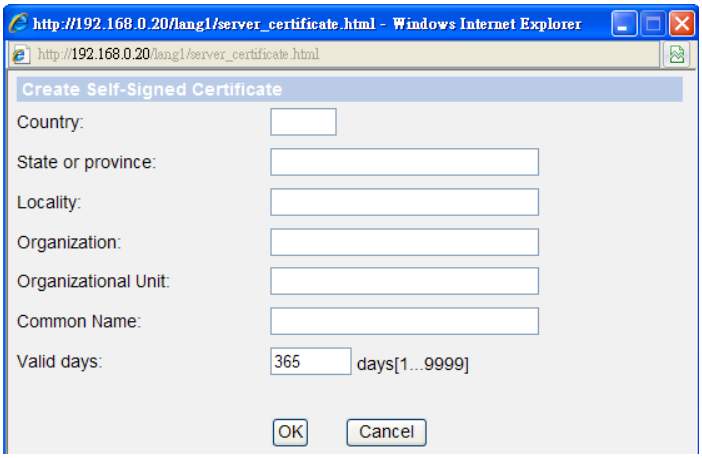



<HTTPS> allows secure connections between the IP Camera and web browser using <Secure Socket Layer (SSL)> or <Transport Layer Security (TLS)>, which ensure camera settings or Username/ Password info from snooping. It is required to install a self-signed certificate or a CA-signed certificate for implementing <HTTPS>.

To use HTTPS on the IP Camera, a HTTPS certificate must be installed. The HTTPS certificate can be obtained by either creating and sending a certificate request to a Certificate Authority (CA) or creating a self-signed HTTPS certificate, as described below.

**Create Self-signed Certificate**

Before a CA-issued certificate is obtained, users can create and install a self-signed certificate first.



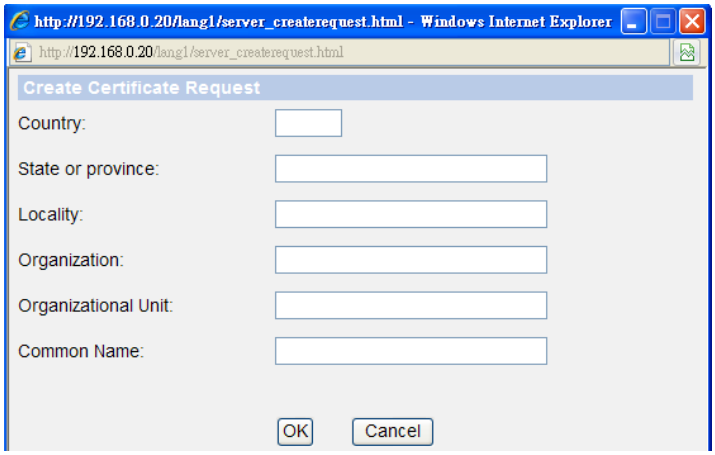

Click on <Create> button under “Create self-signed certificate” and provide the requested information to install a self-signed certificate for the IP Camera. Please refer to the last part of this section: **Provide the Certificate Information** for more details.

Note

The self-signed certificate does not provide the same high level of security as when using a CA-issued certificate.

**Install Signed Certificate**

Click on the <Create Certificate Request> button to create and submit a certificate request in order to obtain a signed certificate from CA.



Provide the request information in the create dialog. Please refer to the following **Provide the Certificate Information** for more details.

When the request is completed, the subject of the Created Request will be shown in the field. Click on <Properties> below the Subject field, copy the PEM-formatted request and send it to your selected CA. When the signed certificate is returned, install it by uploading the signed certificate.

**Provide the Certificate Information**

To create a Self-signed HTTPS Certificate or a Certificate Request to CA, please enter the information as requested:

| | Create Self Signed Certificate | Create Certificate Request |
|---|---|---|
| **Country** | √ | √ |
| **State or Province** | √ | √ |
| **Locality** | √ | √ |
| **Organization** | √ | √ |
| **Organizational Unit** | √ | √ |
| **Common Name** | √ | √ |
| **Valid Day** | √ | - |

- **Country**

Enter a two-letter combination code to indicate the country the certificate will be used in. For instance, type in “US” to indicate United States.

- **State or province**

Enter the local administrative region.

- **Locality**

Enter other geographical information.

- **Organization**

Enter the name of the organization to which the entity identified in “Common Name” belongs.

- **Organization Unit**

Enter the name of the organizational unit to which the entity identified in “Common Name” belongs.

- **Common Name**

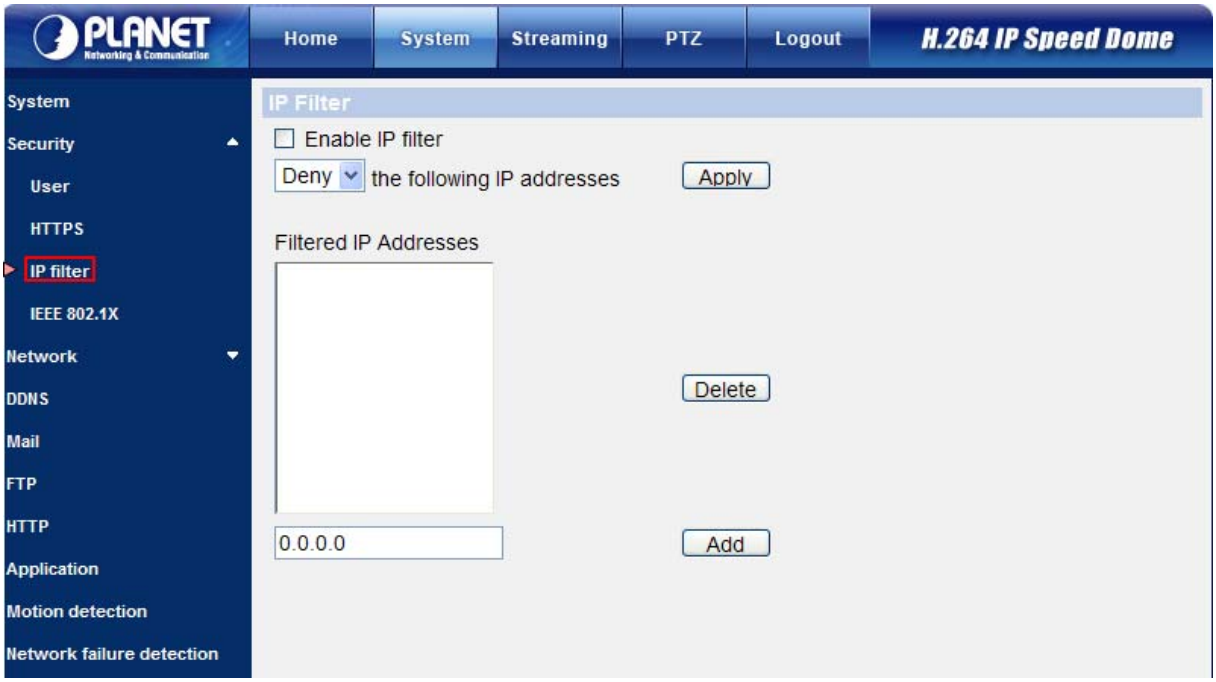
Indicate the name of the person or other entity that the certificate identifies (often used to identify the website).

- **Valid days**

Enter the period in days (1~9999) to indicate the valid period of certificate. Click on <OK> to save the Certificate Information after complete.

#### 4.3.2.3 IP Filter

The IP Filter setting can be found under this path: **System> Security> IP Filter**.




Using the IP filter, access to the IP Camera can be restricted by denying/allowing specific IP addresses.

- **Enabling IP Filter**

Check the box to enable the IP Filter function. Once enabled, the listed IP addresses (IPv4) will be allowed/ denied access to the IP Camera.

Select <Allow> or <Deny> from the drop-down list and click on the <Apply> button to determine the IP Filter behavior.

- **Adding/ Deleting IP Address**

Input the IP address and click on the <Add> button to add a new filtered address.

The Filtered IP Addresses list box shows the currently configured IP addresses. Up to 256 IP address entries may be specified.

To remove an IP address from the list, please select the IP and then click the <Delete> button.

#### 4.3.2.4 IEEE 802.1X

The IEEE 802.1X setting can be found under this path: **System> Security> IEEE 802.1X**.

The IP Camera is allowed to access a network protected by 802.1X/EAPOL (Extensible Authentication Protocol over LAN).

Users need to contact the network administrator for gaining certificates, user IDs and passwords.

**CA Certificate**

The CA certificate is created by the Certification Authority for the purpose of validating itself. Upload the certificate for checking the server's identity.

**Client Certificate/ Private Key**

Upload the Client Certificate and Private Key for authenticating the IP Camera itself.

**Settings**

- **Identity**

Enter the user identity associated with the certificate. Up to 16 characters can be used.

- **Private Key Password**

Enter the password (maximum 16 characters) for your user identity.

**Enable IEEE 802.1X**

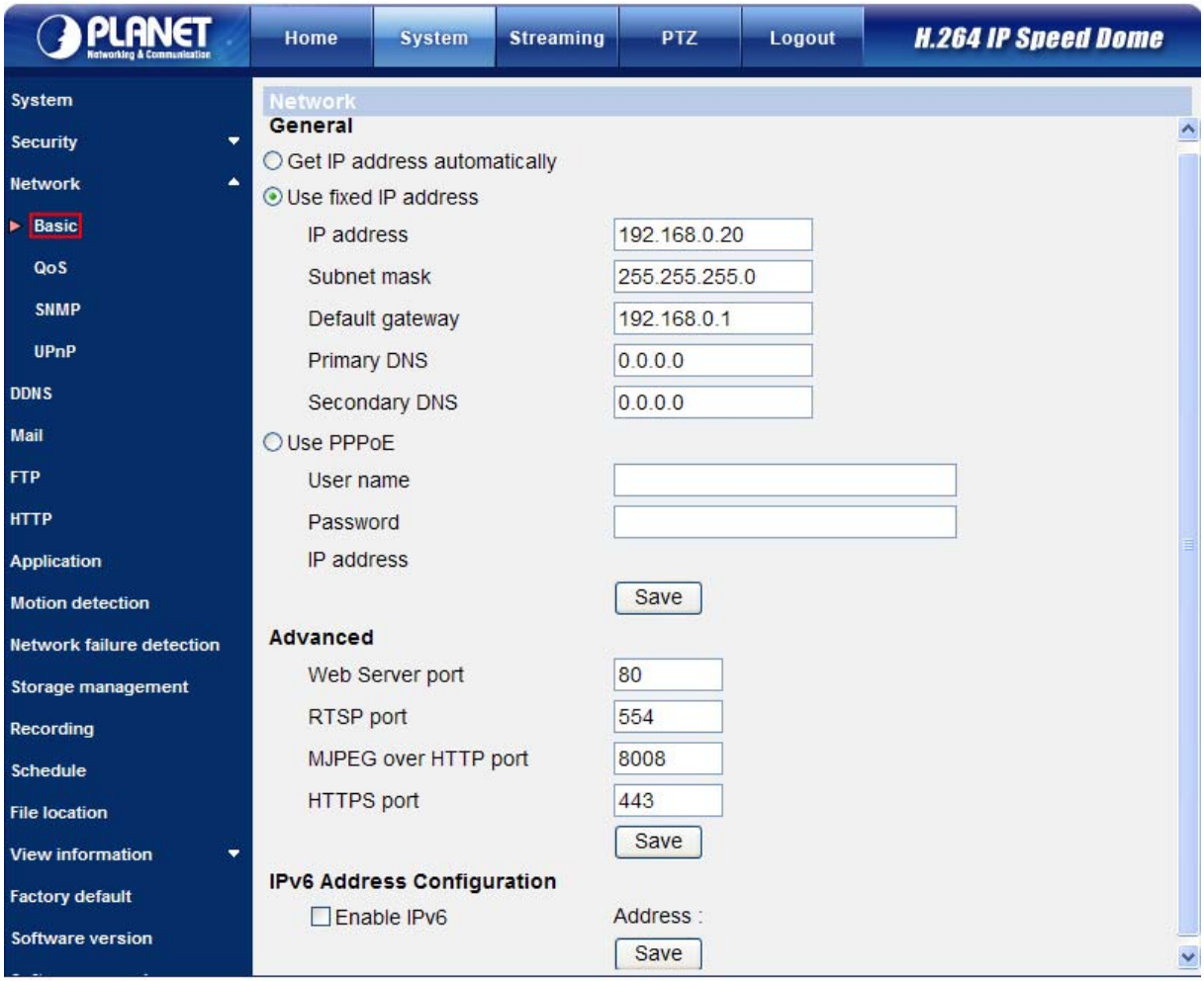
Check the box to enable IEEE 802.1X. Click on <Save> to save the IEEE 802.1X/ EAP- TLS setting.

### 4.3.3 Network

Click <Network> in the left column, and the page will display as shown below.

#### 4.3.3.1 Basic

The Basic setting can be found under this path: **System> Network> Basic**.




Users can choose to connect to the IP Camera with fixed or dynamic (DHCP) IP address. The IP Camera also provides PPPoE support for users who connect to the network via PPP over Ethernet (PPPoE).

**General**

- **Get IP address automatically (DHCP)**

The camera's default setting is <Use fixed IP address>. Please refer to User's Manual for login with the default IP address.

If select <Get IP address automatically>, after the IP Camera restarts, users can search it through the installer program: DeviceSearch.exe, which can be found in "Device Search" folder in the supplied CD.

| | |
|---|---|
| Note | Please make the record of the IP Camera's MAC address, which can be found in the label of the camera, for identification in the future. |

- **Using fixed IP address**

To set up static IP address, select <Use fixed IP address> and move the cursor to the IP address blank and insert the new IP address, e.g. 192.168.7.123; then go to the Default gateway (to be explained later) blank and change the setting, e.g. 192.168.7.254. Press <Save> to confirm the new setting.

When using static IP address to login to the IP Camera, users can access it either through "Device Search" software (refer to User's Manual) or input the IP address in the URL bar and click on <Enter>.

- **IP address**

This is necessary for network identification.

- **Subnet mask**

It is used to determine if the destination is in the same subnet. The default value is "255.255.255.0".

- **Default gateway**

This is the gateway used to forward frames to destinations in a different subnet. Invalid gateway setting will fail the transmission to destinations in a different subnet.

- **Primary DNS**

Primary DNS is the primary domain name server that translates host names into IP addresses.

- **Secondary DNS**

Secondary DNS is a secondary domain name server that back ups the primary DNS.

**Using PPPoE**

For the PPPoE users, enter the PPPoE Username and Password into the fields, and click on the <Save> button to complete the setting.

**Advanced**

- **Web Server port**

The default web server port is 80. Once the port is changed, the user must be notified of the change for the connection to be successful. For instance, when the Administrator changes the HTTP port of the IP Camera whose IP address is 192.168.0.100 from 80 to 8080, the user must type in the web browser "http://192.168.0.100:8080" instead of "http://192.168.0.100".

- **RTSP port**

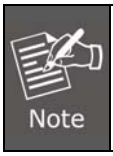
The default setting of RTSP Port is 554; the setting range is from 1024 to 65535.

- **MJPEG over HTTP port**

The default setting of MJPEG over HTTP Port is 8008; the setting range is from 1024 to 65535.

- **HTTPS port**

The default setting of HTTPS Port is 443; the setting range is from 1024 to 65535.



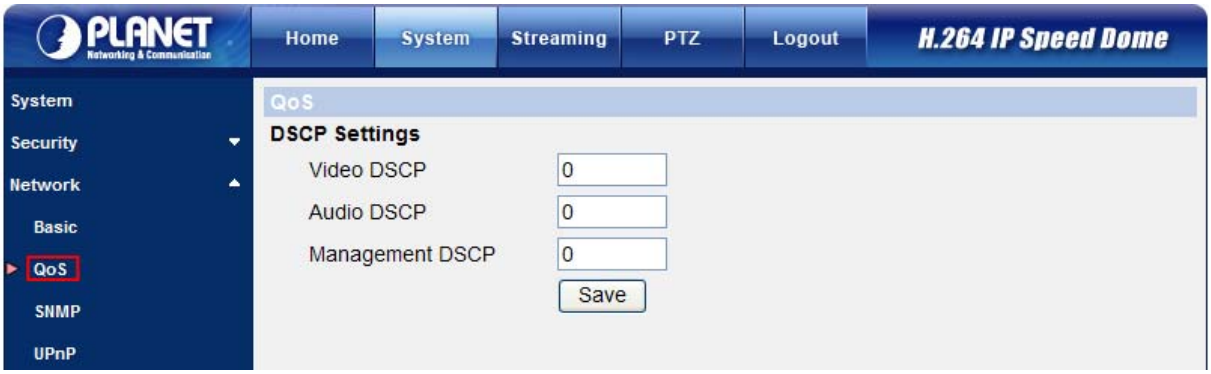

Be aware of choosing a different port from the one set for the web server port.

**IPv6 Address Configuration**

With IPv6 support, users can use the corresponding IPv6 address for browsing. Enable IPv6 by checking the box and click on <Save> to complete the setting.

#### 4.3.3.2 QoS

The QoS (Quality of Service) setting can be found under this path: **System> Network> QoS**.




QoS allows providing differentiated service levels for different types of traffic packets, which guarantees delivery of priority services especially when network congestion occurs. Adapting the Differentiated Services (DiffServ) model, traffic flows are classified and marked with DSCP (DiffServ Codepoint) values, and thus receive the corresponding forwarding treatment from DiffServ capable routers.

**DSCP Settings**

The DSCP value range is from 0 to 63. The default DSCP value is 0, which means DSCP is disabled. The IP Camera uses the following QoS Classes: Video, Audio and Management.

- **Video DSCP**

The class consists of applications such as MJPEG over HTTP, RTP/RTSP and RTSP/HTTP.

- **Audio DSCP**

This setting is only available for the IP Cameras that support audio.

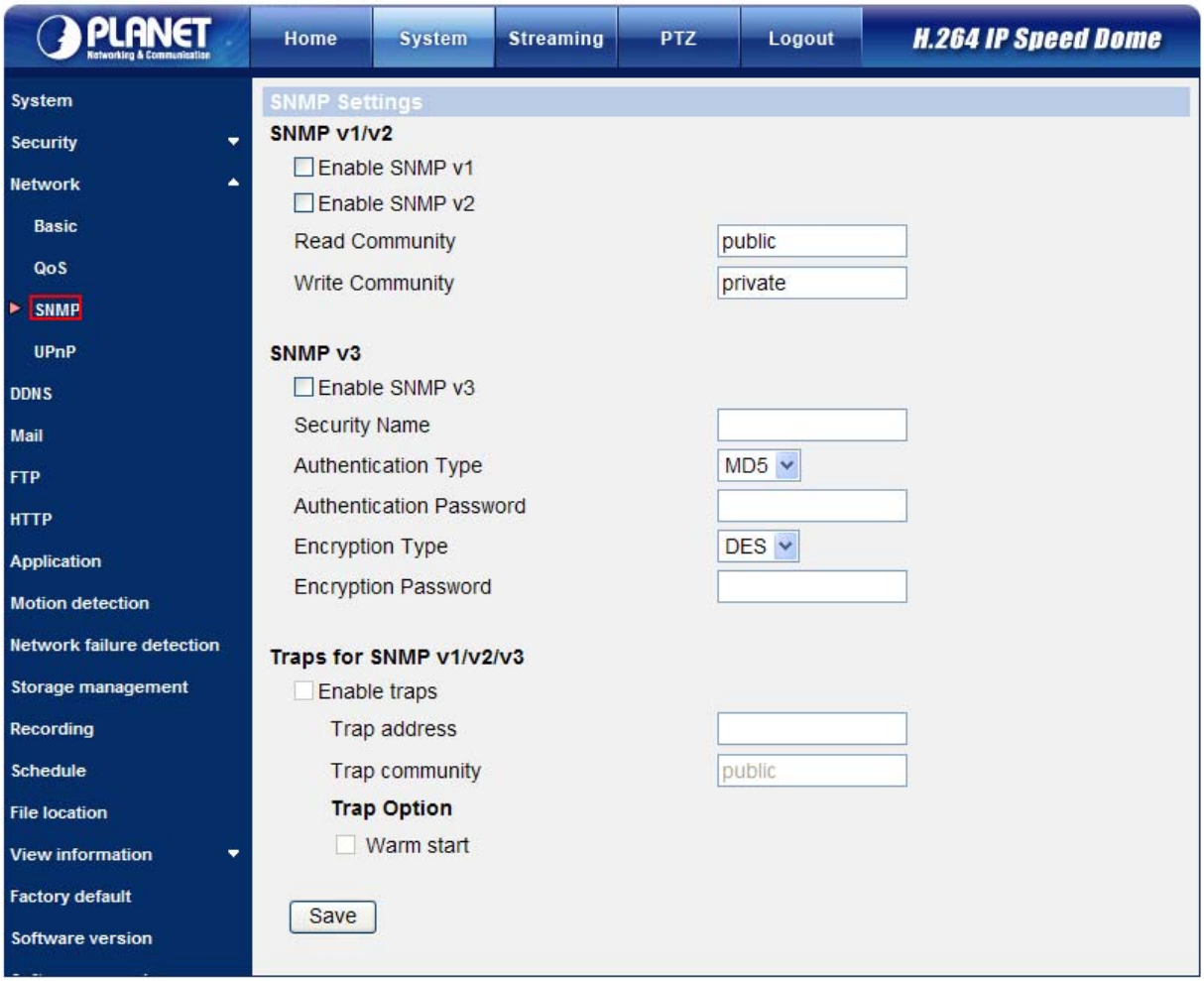
- **Management DSCP**

The class consists of HTTP traffic: Web browsing.

| | |
|---|---|
| Note | To enable this function, please make sure the switches/ routers in the network support QoS. |

#### 4.3.3.3 SNMP

The SNMP (Simple Network Management Protocol) setting can be found under this path: **System> Network> SNMP**.




With Simple Network Management Protocol (SNMP) support, the IP Camera can be monitored and managed remotely by the network management system.

**SNMP v1/ v2**

- **Enabling SNMP v1/ v2**

Select the version of SNMP by checking the box.

- **Read Community**

Specify the community name that has read-only access to all supported SNMP objects. The default value is “public”.

- **Write Community**

Specify the community name that has read/write access to all supported SNMP objects (except read-only objects). The default value is “write”.

**Traps for SNMP v1/ v2**

Traps are used by the IP Camera to send messages to a management system for important events or status changes.

- **Enabling Traps**

Check the box to activate trap reporting.

- **Trap address**

Enter the IP address of the management server.

- **Trap community**

Enter the community to use when sending a trap message to the management system.

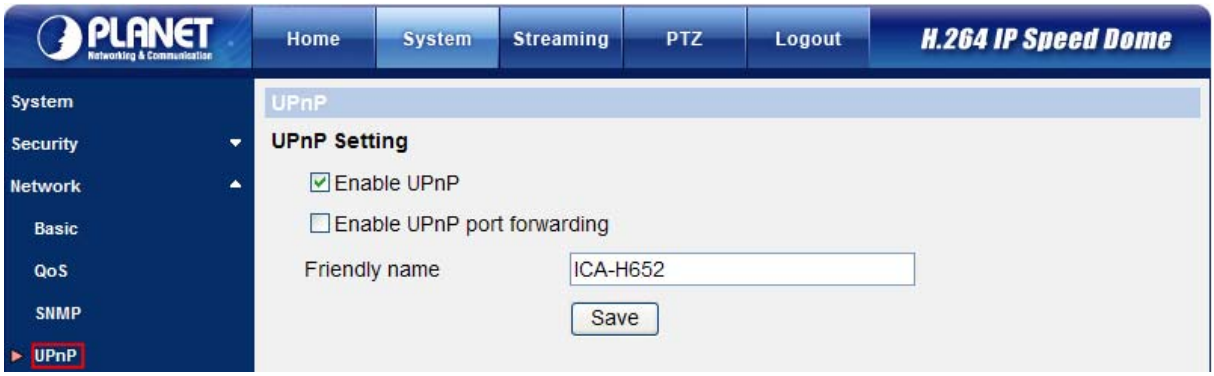
**Trap Option**

- **Warm Start**

A Warm Start SNMP trap signifies that the SNMP device, i.e. IP Camera, performs software reload. Click on <Save> button when complete.

#### 4.3.3.4 UPnP

The UPnP setting can be found under this path: **System> Network> UPnP**.




**UPnP Setting**

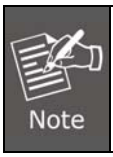
- **Enabling UPnP**

When the UPnP is enabled, whenever the IP Camera is presented to the LAN, the icon of the connected IP Cameras will appear in My Network Places to allow for direct access.

| | |
|---|---|
| Note | To enable this function, please make sure the UPnP component is installed on your computer. Please refer to Install UPnP components for UPnP component installation procedure. |

- **Enabling UPnP port forwarding**

When the UPnP port forwarding is enabled, the IP Camera is allowed to open the web server port on the router automatically.




To enable this function, please make sure that your router supports UPnP and it is activated.

- **Friendly name**

Set the name for the IP Camera for identity.

### 4.3.4 DDNS

Dynamic Domain Name System (DDNS) allows a host name to be constantly synchronized with a dynamic IP address. In other words, it allows those using a dynamic IP address to be associated to a static domain name so others can connect to it by name.

PLANET Easy DDNS is a way help to get your Domain Name with just one click. You can just login to the Web Management Interface of your devices, check the DDNS menu and just enable it.

Once you enable the Easy DDNS, your PLANET Network Device will use the format PLxxxxxx where xxxxxx is the last 6 characters of your MAC address that can be found on the Web page or bottom label of the device. (For example, 00-30-4F-77-88-17, it will be converted into PL778817.planetddns.com)

**Enabling DDNS**

Check the item to enable DDNS.

**Provider**

Select one DDNS host from the provider list.

**Host name**

Enter the registered domain name in the field.

Example : planetddnstest01

**Username**

Enter the username required by the DDNS provider for authentication.

For example, planetddnstest01

**Password**

Enter the password required by the DDNS provider for authentication.

For example, planetddnstest0

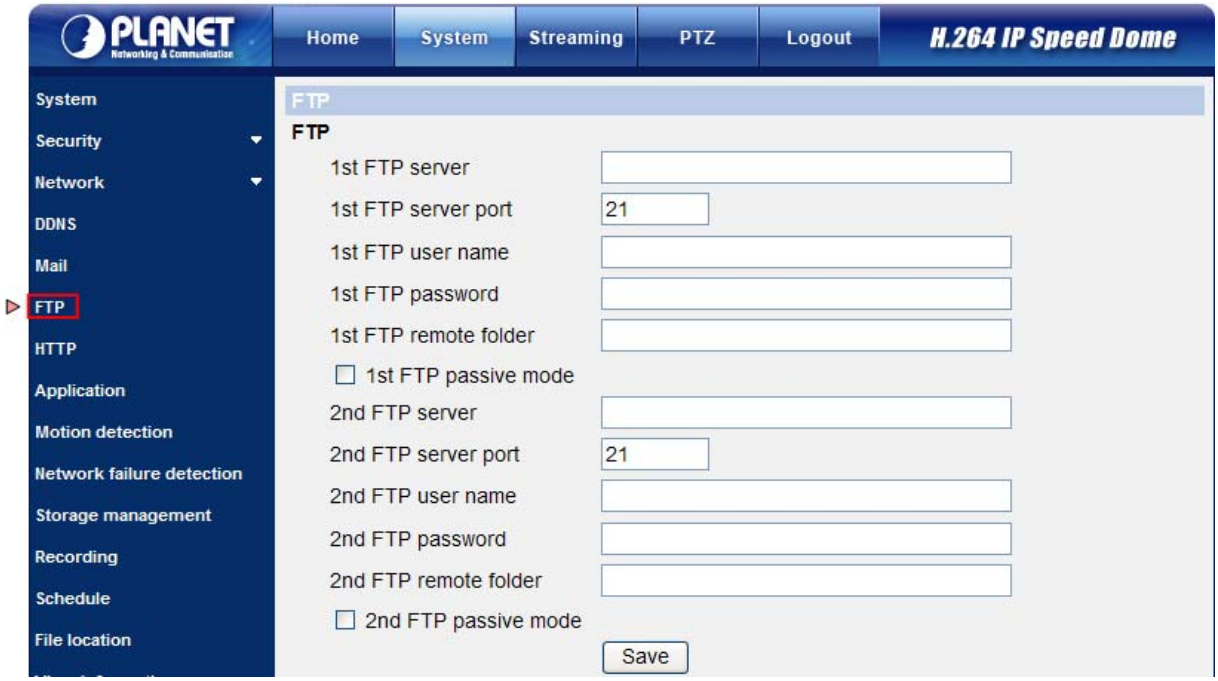
### 4.3.5 Mail

The Administrator can send an e-mail via Simple Mail Transfer Protocol (SMTP) when motion is detected. SMTP is a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and the message text is transferred. The configuration page is shown as follows:

Two sets of SMTP can be configured. Each set includes SMTP Server, Account Name, Password and E-mail Address settings. For SMTP server, contact your network service provider for more specific information.

### 4.3.6 FTP

The Administrator can set as sending alarm message to a specific File Transfer Protocol (FTP) site when motion is detected. Users can assign alarm message to up to two FTP sites. The FTP setting page is shown below. Enter the FTP details, which include server, server port, user name, password and remote folder, in the fields. Press “Save” when finished.




### 4.3.7 HTTP

The HTTP setting can be found under this path: **System> HTTP**.

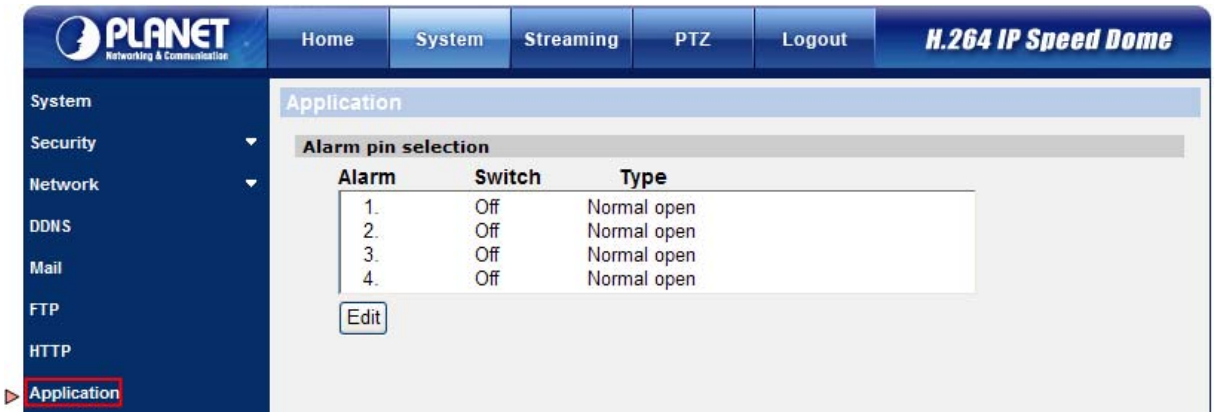
A HTTP Notification server can listen for notification messages from IP Cameras by triggered events. Enter the HTTP details, which include server name (for instance, http://192.168.0.1/admin.php), user name, and password in the fields. <Alarm> triggered and <Motion Detection> notifications can be sent to the specified HTTP server.

Click on <Save> when finished.

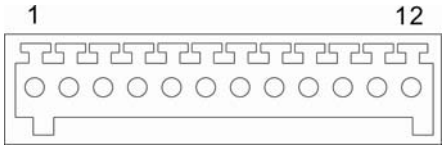
| | |
|---|---|
| Note | Please refer to: Application > Send HTTP notification for HTTP Notification settings. |

### 4.3.8 Application (Alarm Settings)

The Application setting can be found under this path: **System> Application**.




The Camera is equipped with four alarm inputs and two relay outputs for cooperating with alarm system to catch events' images. Please refer to the Alarm Pin Definition shown below.




| Pin | Definition |
|---|---|
| 1 | ALARM_OUT_NO_1 |
| 2 | ALARM_OUT_NC_1 |
| 3 | ALARM_OUT_COM_1 |
| 4 | GND |
| 5 | ALARM_OUT_NO_2 |
| 6 | ALARM_OUT_NC_2 |

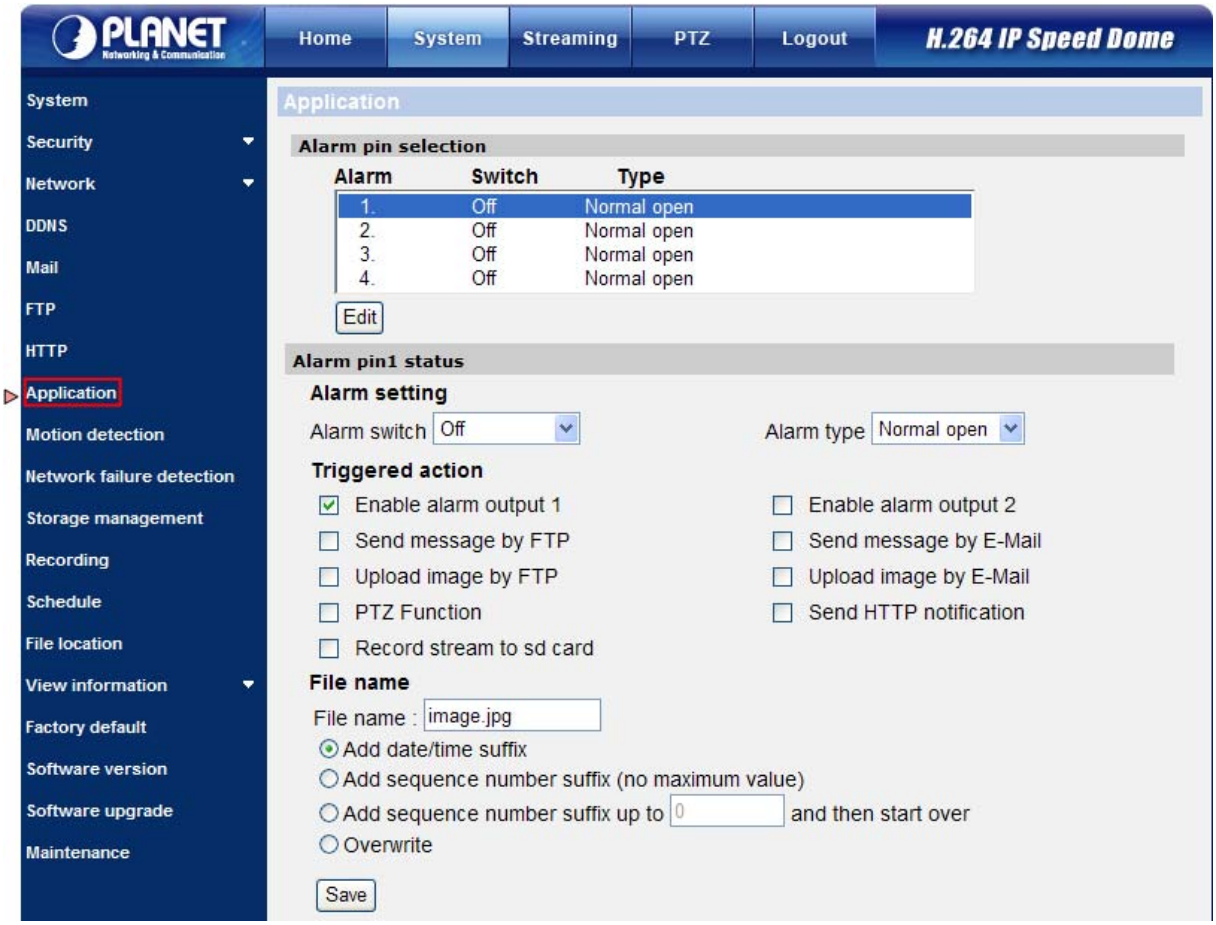
| Pin | Definition |
|---|---|
| 7 | ALARM_OUT_COM_2 |
| 8 | GND |
| 9 | ALARM_IN_4 |
| 10 | ALARM_IN_3 |
| 11 | ALARM_IN_2 |
| 12 | ALARM_IN_1 |

**Alarm Pin Selection**

Select an alarm pin which is to be configured from the "Alarm Pin Selection" field. Then press the button "Edit" below the field to carry on alarm programming.

**Alarm Status Settings**

The specific alarm pin's property can be programmed in this section as shown below.




**Alarm Switch**

The Administrator can enable, disable or set the alarm function enabled by schedule.

**Alarm Type**

Select an alarm type, “Normal close” or “Normal open,” that corresponds with the alarm application.

**Triggered Action (Multi-option)**

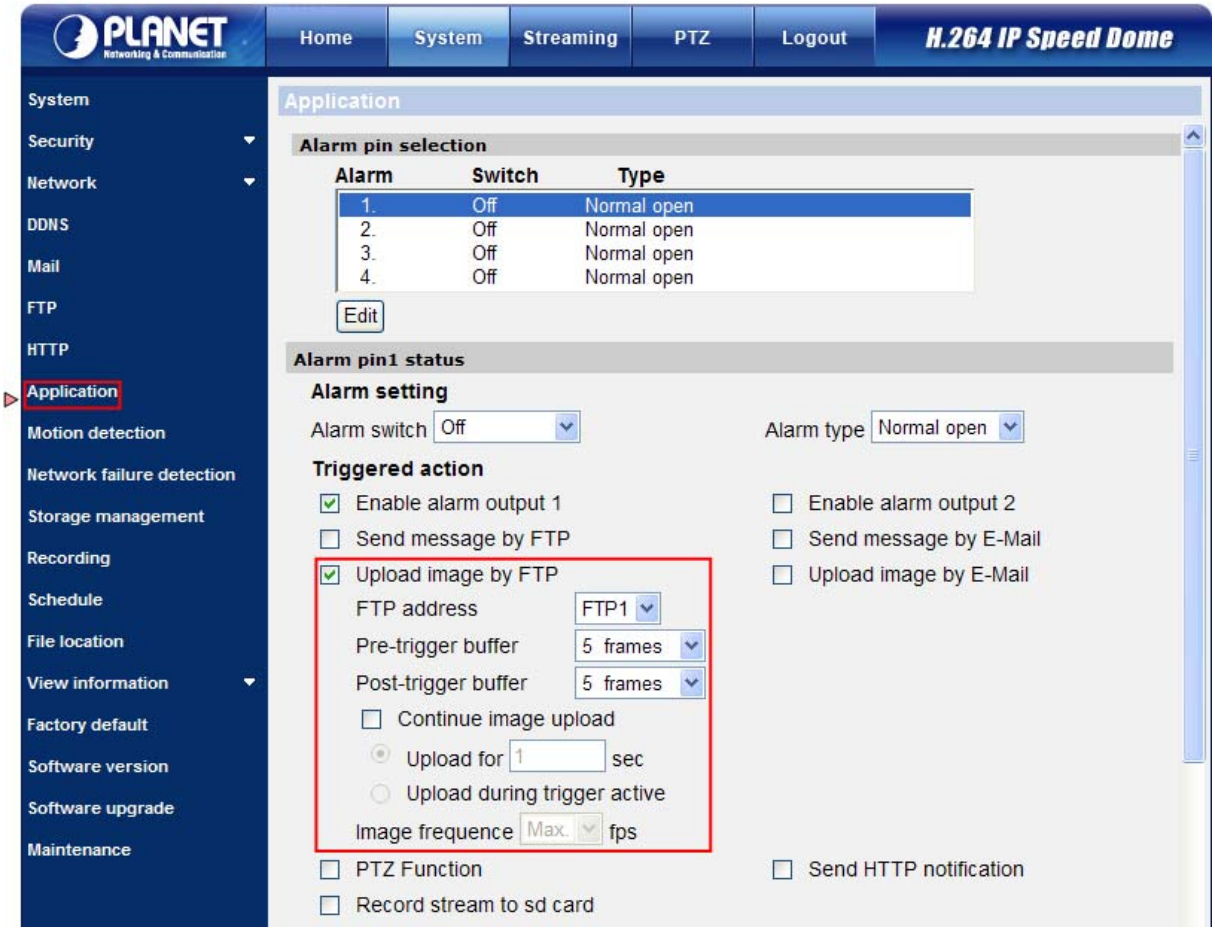
The Administrator can specify alarm actions that will take at an alarm occurrence. All options are listed as follows:

- **Enabling Alarm Output 1/2**
  Select the item to enable alarm relay output.

- **Sending Alarm Message by FTP/E-Mail**
  The Administrator can select whether to send an alarm message by FTP and/or E-Mail when an alarm is triggered.

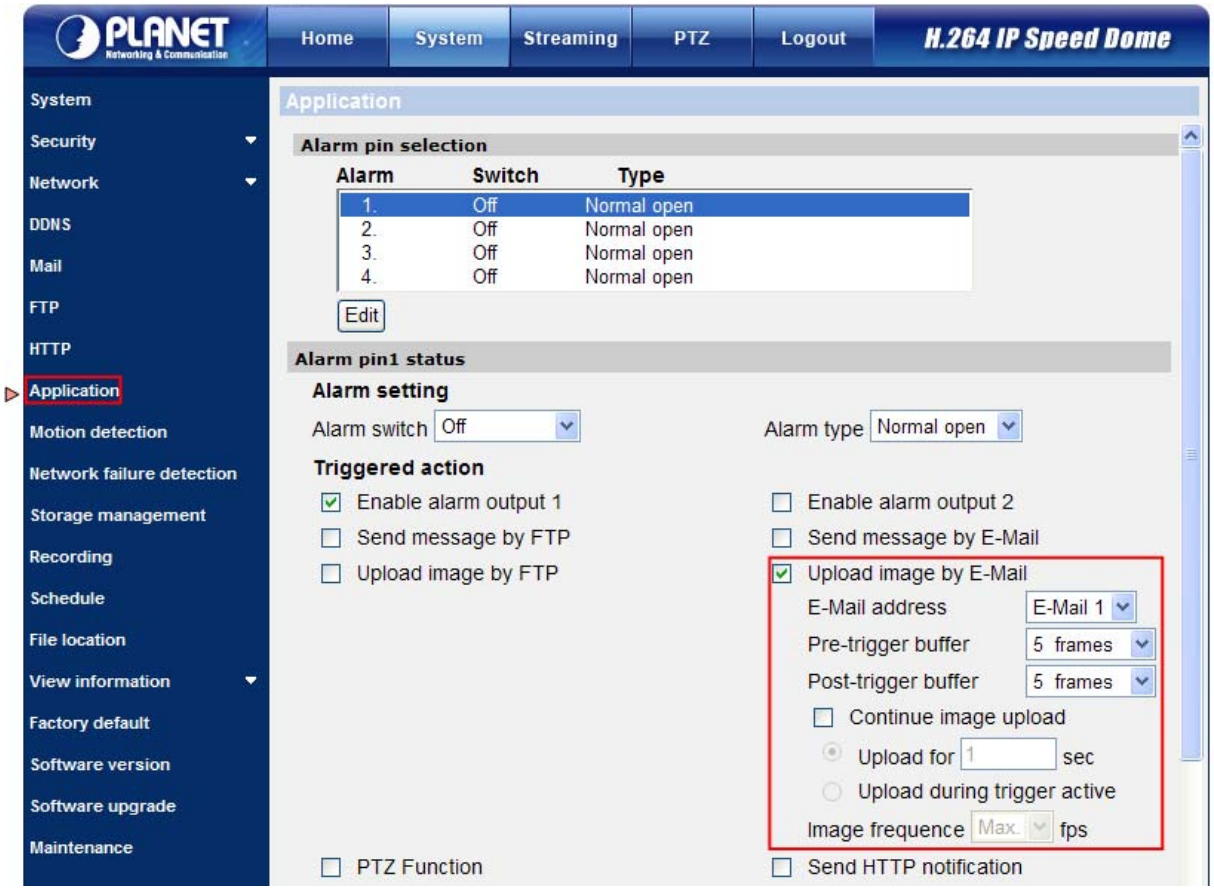
- **Uploading Image by FTP**

Select this item, and the Administrator can assign a FTP site and configure various parameters as shown in the figure below. When the alarm is triggered, event images will be uploaded to the appointed FTP site.




- **Uploading Image by E-Mail**

  Select this item, and the Administrator can assign an e-mail address and configure various parameters as shown in the figure below. When the alarm is triggered, event images will be sent to the appointed e-mail address.




| | |
|---|---|
| Note | Make sure SMTP or FTP configuration has been completed. See section Mail and FTP for further details. |

| | |
|---|---|
| Note | One of the streams has been set to M-JPEG compression; otherwise, the image couldn't be uploaded by E-mail of FTP. |

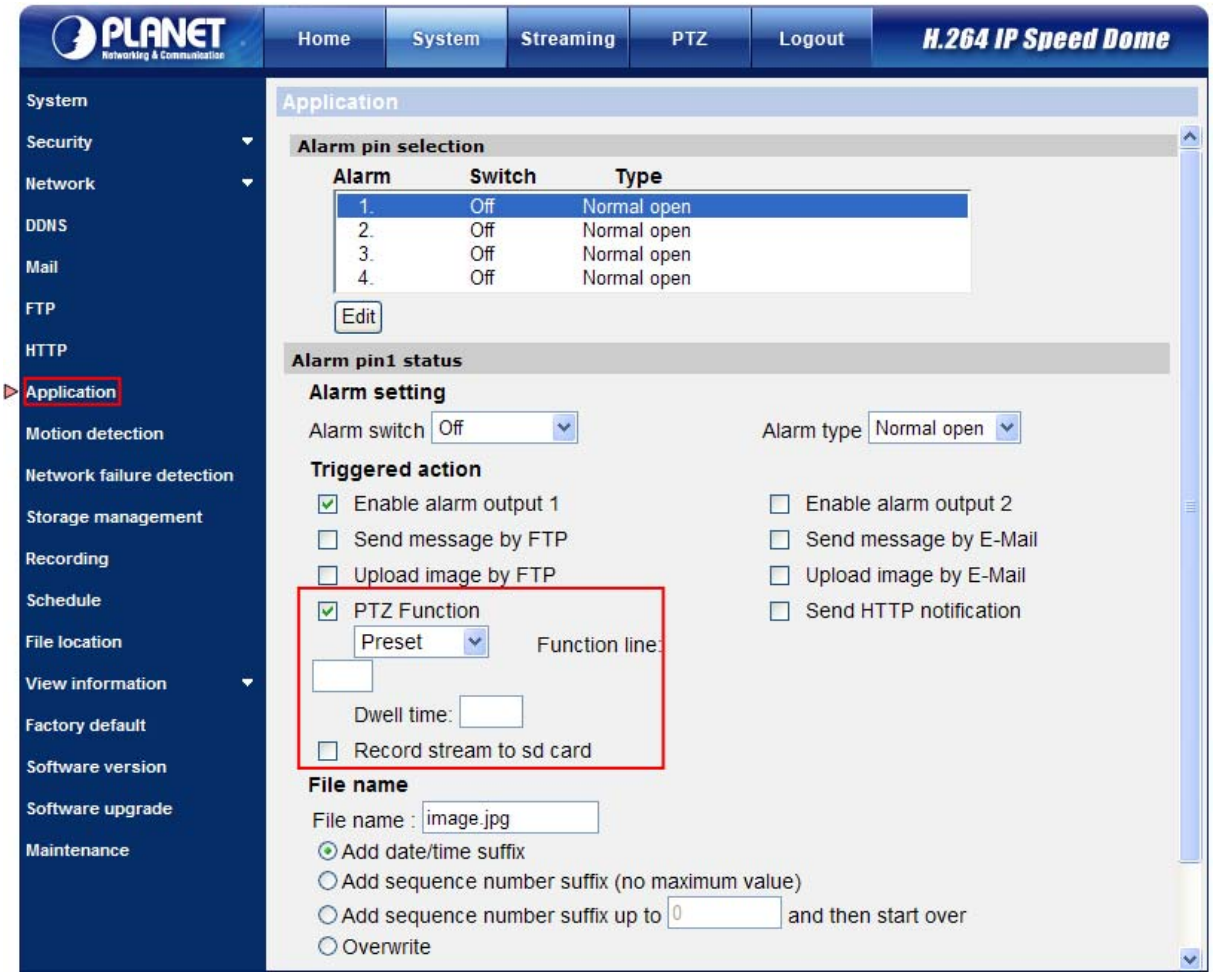
- **PTZ Function**

Assign a camera function: Preset, Sequence, Auto pan or Cruise, and specify a Preset Point/Sequence Line/Auto pan Path/Cruise Line for the camera to perform at an alarm occurrence.

| | |
|---|---|
| Note | Please refer to the sections through Preset Programming to Sequence Line Programming for details of Preset Point / Sequence Line / Auto pan Path / Cruise Line setups. |

If the selected function is "Preset," it is required to enter its dwell time (1 ~ 256 sec.) in the corresponding field as shown below. When the alarm is triggered, the camera will go to the selected

Preset Point and stay there for a user-defined period of time. As for other function modes, the camera will keep executing the specified function; to stop the performance, simply change the camera's status.

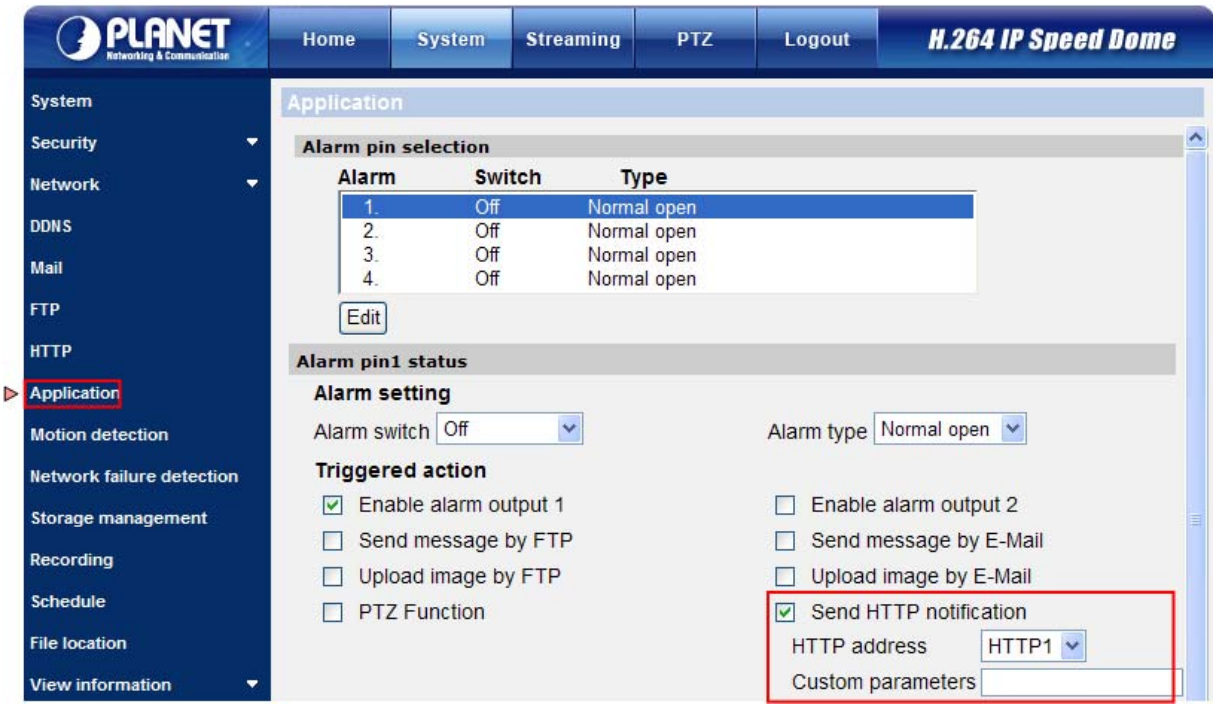



Note

The dwell time is only adjustable when selecting **Preset** as the alarm action. When the dwell time is up, the Speed Dome IP Camera will go back to its triggered position and recheck alarm pin status.

- **Sending HTTP notification**

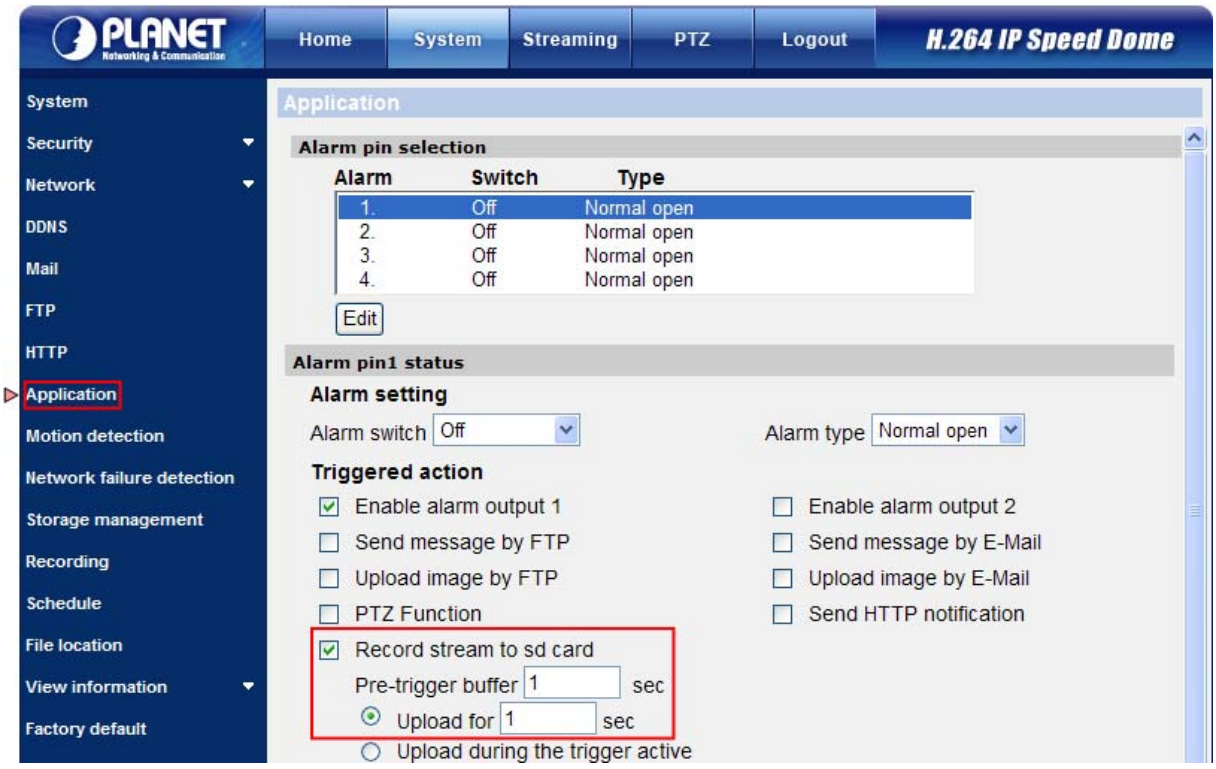
Check this item, select the destination HTTP address, and specify the parameters for event notifications by <Alarm> triggered. When an alarm is triggered, the notification can be sent to the specified HTTP server.




For instance, if the custom parameter is set as" action=1&group=2", and the HTTP server name is" http://192.168.0.1/admin.php", the notification will be sent to HTTP server as" http://192.168.0.1/admin.php? action=1&group=2" when alarm is triggered.

- **Recording Stream to SD Card**

Select the item and the alarm-triggered recording will be saved into your Micro SD card.

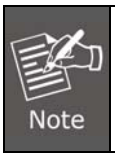



Pre-trigger buffer recording function allows users to check what causes the trigger. The pre-trigger

buffer time range is from 1 to 3 seconds.

Select <Upload for __ sec> to set the recording duration after alarm is triggered. The setting range is from 1 to 99999 seconds.

Select <Upload during the trigger active> to record the triggered video until the trigger is off.




Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details.

**File Name**

Enter a file name in the blank, e.g. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- **Add date/time suffix**
  File name: imageYYMMDD_HHNNSS_XX.jpg
  Y: Year, M: Month, D: Day
  H: Hour, N: Minute, S: Second
  X: Sequence Number

- **Add sequence number suffix (no maximum value)**
  File name: imageXXXXXXX.jpg
  X: Sequence Number

- **Add sequence number suffix (limited value)**
  File Name: imageXX.jpg
  X: Sequence Number
  The file name suffix will end at the number being set. For example, if the setting is up to "10," the file name will start from 00, end at 10, and then start all over again.

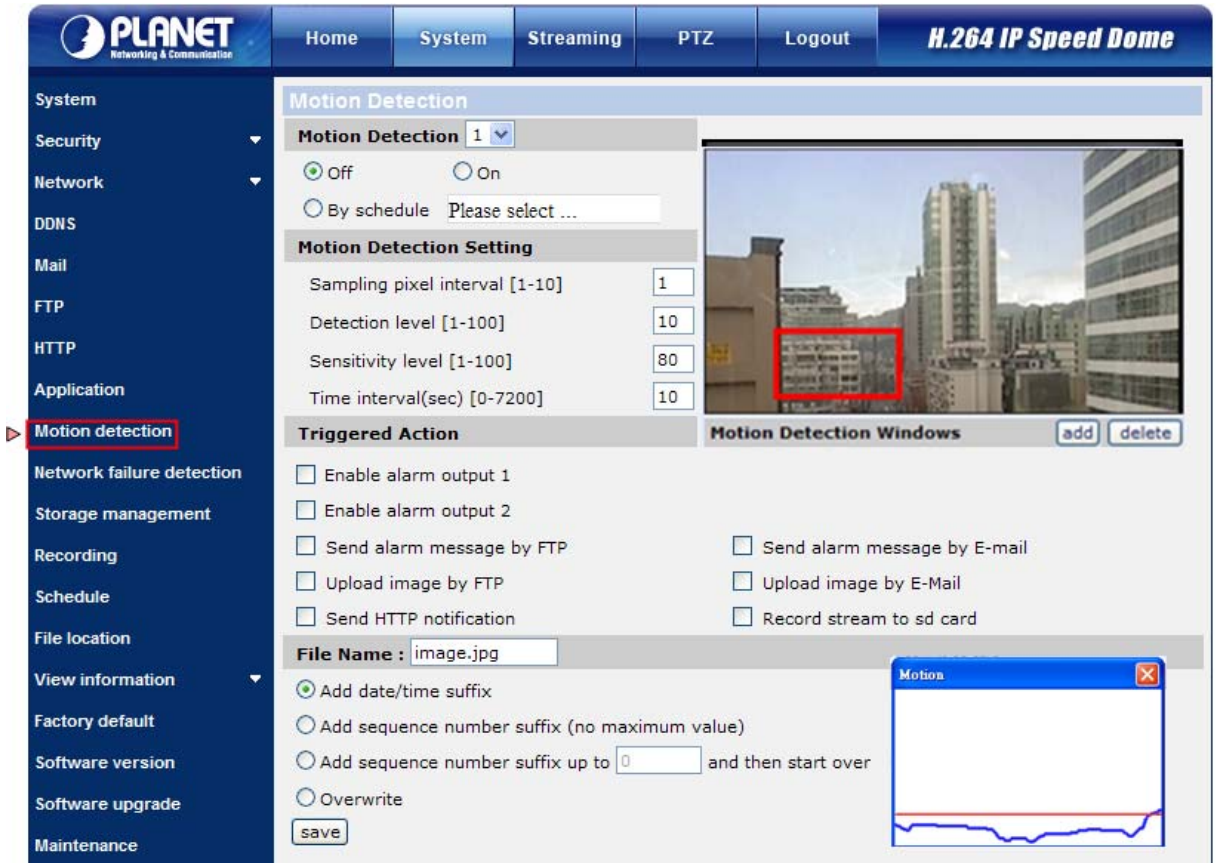
- **Overwrite**
  The original image in the FTP site will be overwritten by the new uploaded file with a static filename.

**Save**

After completing all the settings mentioned above, please click on the Save button to save all the settings on this page.

### 4.3.9 Motion Detection

The Motion Detection setting can be found under this path: **System> Motion Detection**.

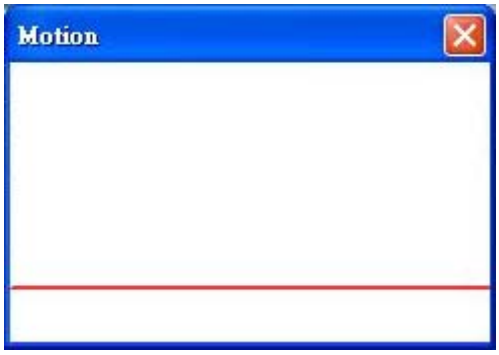



Motion Detection function allows detecting suspicious motion and triggering alarms when motion volume in the detected area reaches/exceeds the determined sensitivity threshold value.

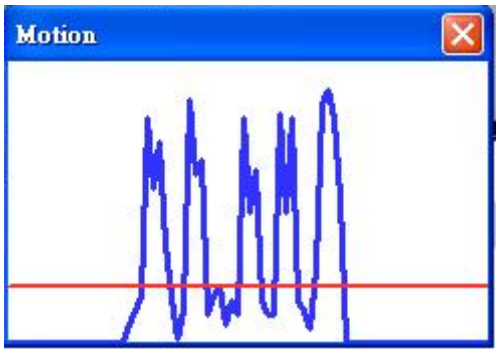
On the Motion Detection setting page, there is a frame (**Motion Detection Window**) displayed on the Live View Pane. The Motion Detection Window is for defining the motion detection area. To change the size of the Motion Detection Window, move the mouse cursor to the edge of the frame and draw it outward/inward. Moving the mouse to the center of the frame can shift the frame to the intended location.

Up **10** Motion Detection Windows can be set. Press the “add” button under the Live View Pane to add a Motion Detection Window. To cancel a Motion Detection Window, move the mouse cursor to the selected Window, and click on the “delete” button.

If Motion Detection function is activated, the pop-off window (Motion) with indication of motion will be shown.




When motion is detected, the signals will be displayed on the Motion window as shown below.




Detailed settings of Motion Detection are described as follows:

**Motion Detection**

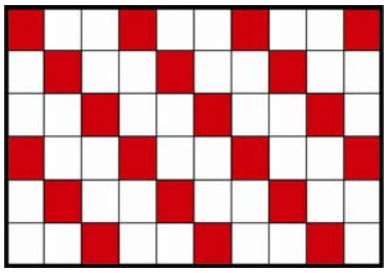
You will be able to turn on/off or by schedule for Motion Detection in System section. Default setting is Off.

**Motion Detection Setting**

Users could adjust various parameters of Motion Detection in this section.

- Sampling pixel interval [1-100]:

The default value is 10, which means system will take one sampling pixel for every 10 pixel.



- Detection level [1-100]:

The default level is 10. The item is to set detection level for each sampling pixel; the smaller the value, the more sensitive it is.

- Sensitivity level [1-100]:

The default level is 80, which means if 20% or more sampling pixels are detected differently, system will detect motion. The bigger the value, the more sensitive it is. Meanwhile, when the value is bigger, the red horizontal line in the motion indication window will be lower accordingly.

- Time interval (sec) [0-7200]:

The default interval is 10. The value is the interval between each detected motion.

**Triggered Action (Multi-option)**

The Administrator can specify alarm actions that will take when motion is detected. All options are listed as follows:

- **Enabling Alarm Output 1/2**

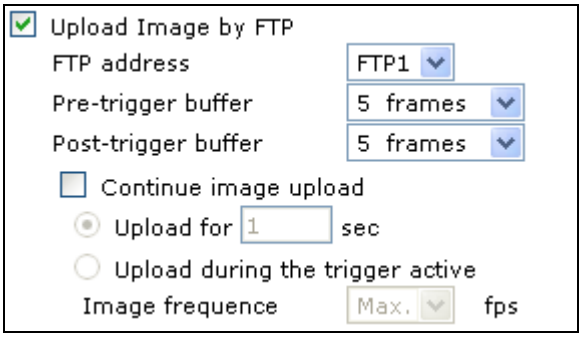
Check the item and select the predefined type of alarm output to enable alarm relay output when motion is detected.

- **Sending Alarm Message by FTP/E-Mail**

The Administrator can select whether to send an alarm message by FTP and/or E-Mail when motion is detected.

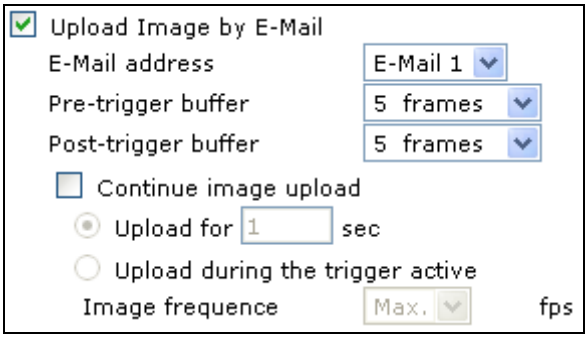
- **Uploading Image by FTP**

Select this item, and the Administrator can assign a FTP site and configure various parameters as shown in the figure below. When motion is detected, event images will be uploaded to the appointed FTP site.




- **Uploading Image by E-Mail**

Select this item, and the Administrator can assign an e-mail address and configure various parameters as shown in the figure below. When motion is detected, event images will be sent to the appointed e-mail address.




| | |
|---|---|
| Note | Make sure SMTP or FTP configuration has been completed. See section Mail and FTP for further details. |

| | |
|---|---|
| Note | One of the streams has been set to M-JPEG compression; otherwise, the image couldn't be uploaded by E-mail of FTP. |

- **Sending HTTP notification**

Check this item, select the destination HTTP address, and specify the parameters for event notifications by <Motion Detection> triggered. When an alarm is triggered, the notification can be sent to the specified HTTP server.

For instance, if the custom parameter is set as" action=1&group=2", and the HTTP server name is" http://192.168.0.1/admin.php", the notification will be sent to HTTP server as" http://192.168.0.1/admin.php? action=1&group=2" when alarm is triggered.

- **Recording stream to SD Card**

Select this item and the Motion Detection recording will be stored in Micro SD/ SDHC card when motion is detected.

| | |
|---|---|
| Note | Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details |

**File Name**

The uploaded image's filename format can be set in this section. Please select the one that meets your requirements.

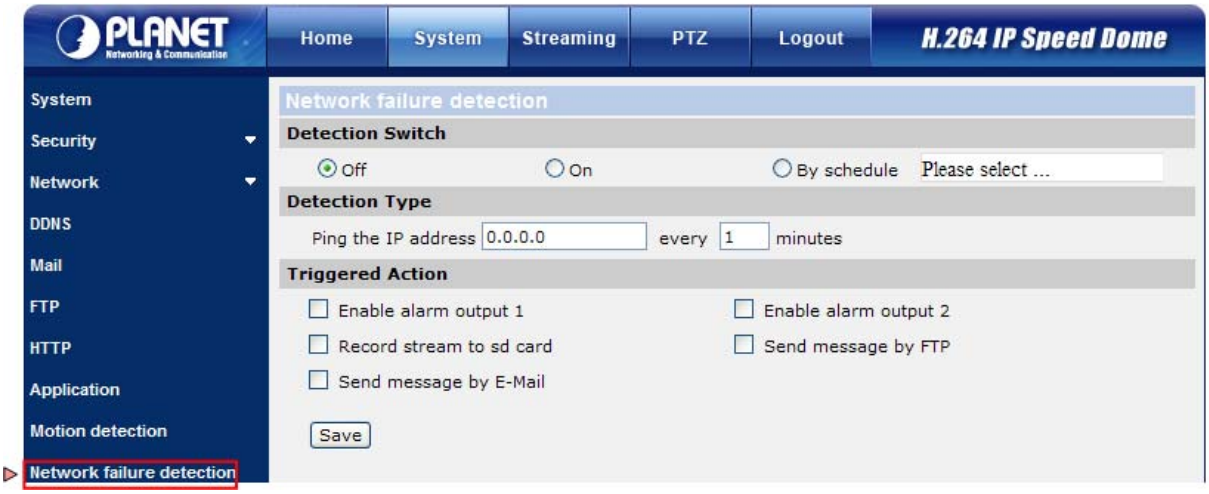
**Save**

Click the Save button to save all the Motion Detection settings mentioned above.

### 4.3.10 Network failure detection

Network Failure Detection allows the IP Camera to ping another IP device (e.g. NVR, VSS, Video Server, etc.) within the network periodically and generates some actions in case of network failure occurs, for instance, a Video Server is somehow disconnected

The Tampering setting can be found under this path: **System> Network failure detection**




Being capable of implementing local recording (through Micro SD card) when network failure happens, the IP Camera could be a backup recording device for the surveillance system.

**Detection Switch**

You will be able to turn on/off or by schedule for Network Failure Detection in System section.
Default setting is Off.

**Detection Type**

Input the IP device address and the period of ping time to ping. The ping time
setting range is from 1 to 99 minutes.

**Triggered Action (Multi-option)**

The Administrator can specify alarm actions that will take when network failure is detected. All options are listed as follows:

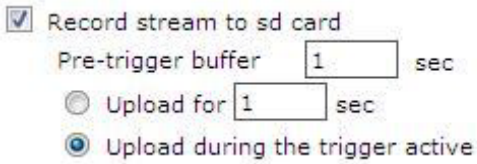
- **Enabling Alarm Output 1/2**

Check the items and select the predefined type of alarm output to enable alarm relay outputs when tampering is detected.

- **Recording Stream to SD Card**

Select this item and the Tampering Alarm recording will be stored in Micro SD/ SDHC card when tampering is detected.

Pre-trigger buffer recording function allows users to check what causes the trigger. The pre-trigger buffer time range is from 1 to 3 seconds. Select <Upload for __ sec> to set the recording duration after alarm is triggered. The setting range is from 1 to 99999 seconds. Select <Upload during the trigger active> to record the triggered video until the trigger is off.




Note: Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details.

- **Sending Alarm Message by FTP/E-Mail**

The Administrator can select whether to send an alarm message by FTP and/or E-Mail when tampering is detected.

- **Uploading Image by FTP**

Select this item and the Administrator can assign an FTP site and configure various parameters. When tampering is detected, event images will be uploaded to the appointed FTP site.

- **Uploading Image by E-Mail**

Select this item and the Administrator can assign an e-mail address and configure various parameters. When tampering is detected, event images will be sent to the appointed e-mail address.

Note: Make sure SMTP or FTP configuration has been completed. Refer to Mail and FTP for further details.

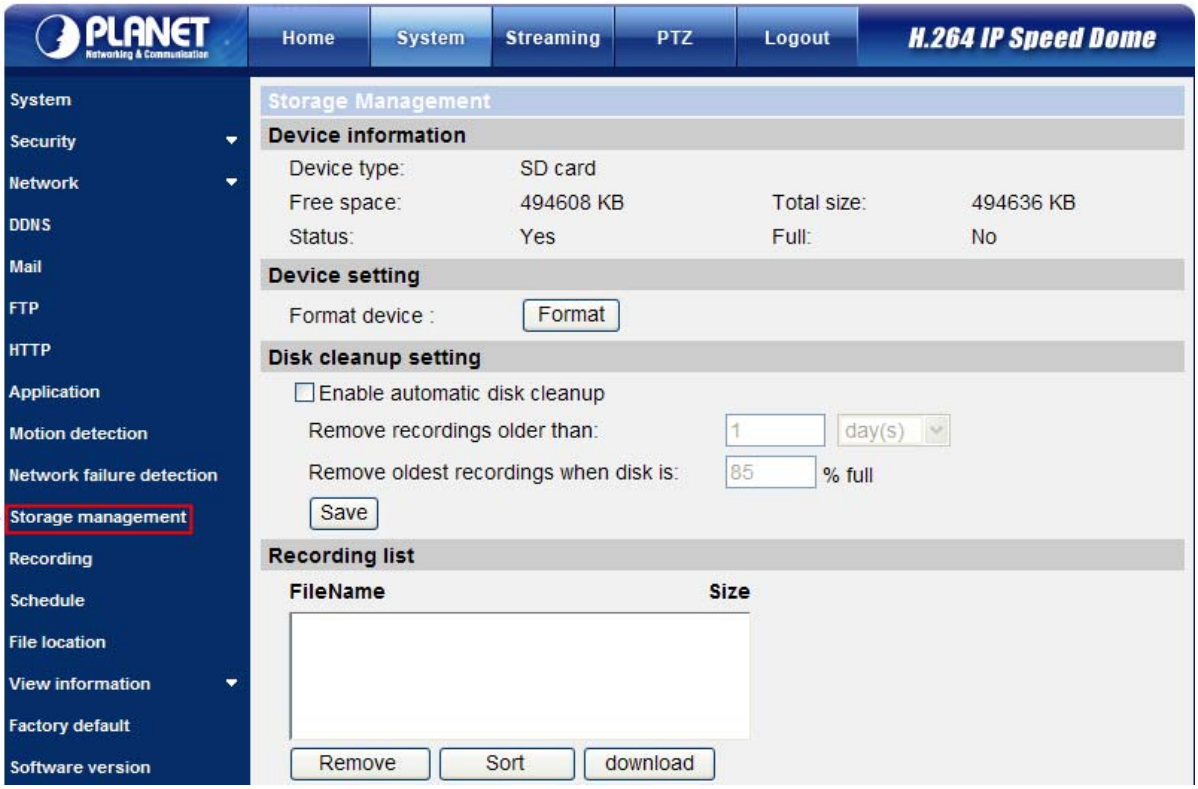
- **Sending HTTP notification**

Check this item, select the destination HTTP address, and specify the parameters for HTTP notifications. When the Tampering Alarm is triggered, the HTTP notifications can be sent to the specified HTTP server.

For instance, if the custom parameter is set as" action=1&group=2", and the HTTP server name is" http://192.168.0.1/admin.php", the notification will be sent to HTTP server as" http://192.168.0.1/admin.php? action=1&group=2" when alarm is triggered.

### 4.3.11 Storage Management (Local Recording)

The Storage Management setting can be found under this path: **System> Storage Management**.




Users can implement local recording to the Micro SD/SDHC card up to 32GB. This page shows the capacity information of the Micro SD card and a recording list with all the recording files saved on the memory card. Users can also format the SD card and implement automatic recording cleanup through the setting page.

To implement Micro SD card recording, please go to the <Recording> page (refer to the section Recording) for activation.

| | |
|---|---|
| Note | Please format the Micro SD/SDHC card when using for the first time. Formatting will also be required when a memory card already being used on one camera and later transferred to another camera with a different software platform. |

**Device information**

When users insert the Micro SD/SDHC card, the card information such as the memory capacity and status will be shown in the Device Information section.

When the memory card is successfully installed, the memory card status will be shown in <Device information> section on the Storage Management page.

**Device setting**

Click on the <Format> button to format the memory card.

**Disk cleanup setting**

Users can enable automatic recordings cleanup by specifying the time and storage limits.

**Recording List**

Each video file on the Micro SD/SDHC card will be listed on the Recording list. The maximum file size is 60 MB per file.

When the recording mode is set as <Always> (consecutive recording) and the Micro SD/ SDHC card recording is also allowed to be enabled by events triggered. Once events occur, the system will immediately implement events recording to the memory card. Then the IP Camera will return to the regular recording mode after events recording.

- **Remove**

To remove a file, select the file first, and then click on the <Remove> button.

- **Sort**

Click on the <Sort> button, and the files on the Recording list will be listed in name and date order.

The capital letter A/M/R appears at the very beginning of name that denotes the sort of the recording: A stands for Alarm; M stands for Motion; R stands for regular recording.

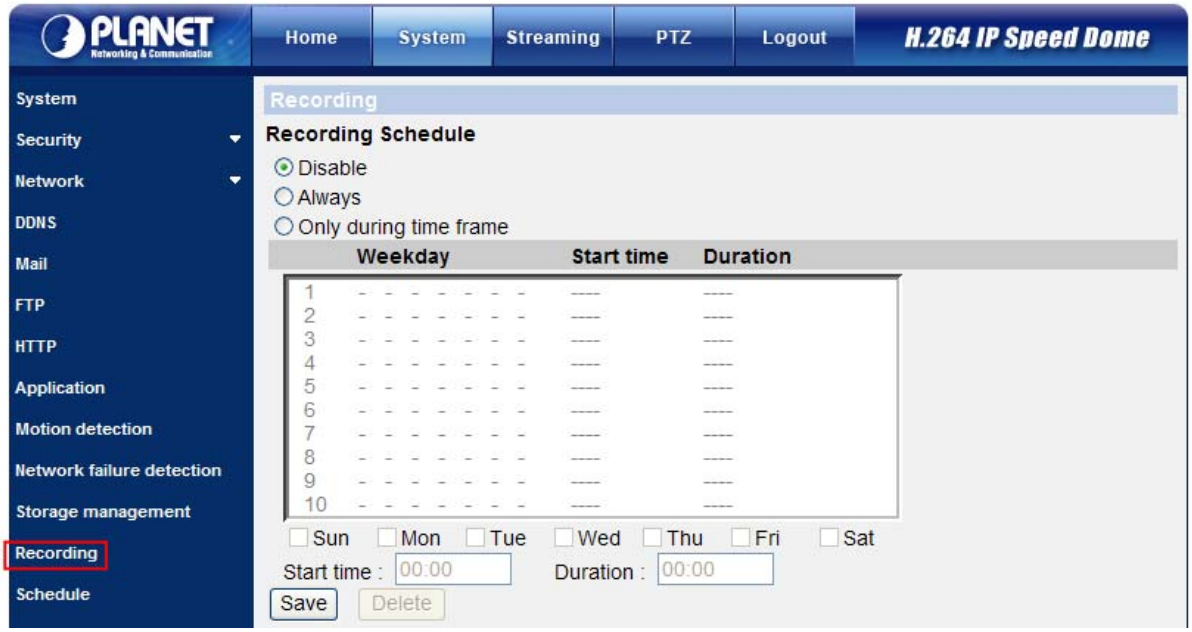
- **Download**

To open/download a video clip, select the file first, and then click on the <download> button below the Recording list field. The selected file window will pop up. Click on the AVI file to directly play the video in the player or download it to a specified location.

### 4.3.12 Recording (Local Recording)

The Recording setting can be found under this path: **System> Recording**.

On the Recording setting page, users can specify the recording schedule that fits the present surveillance requirements.




**Activating Micro SD/SDHC Card Recording**

Two types of schedule mode are offered: Always and Time Frame setting. Users can set up the time frame to fit the recording schedule or choose <Always> to activate Micro SD/SDHC Card Recording all the time.

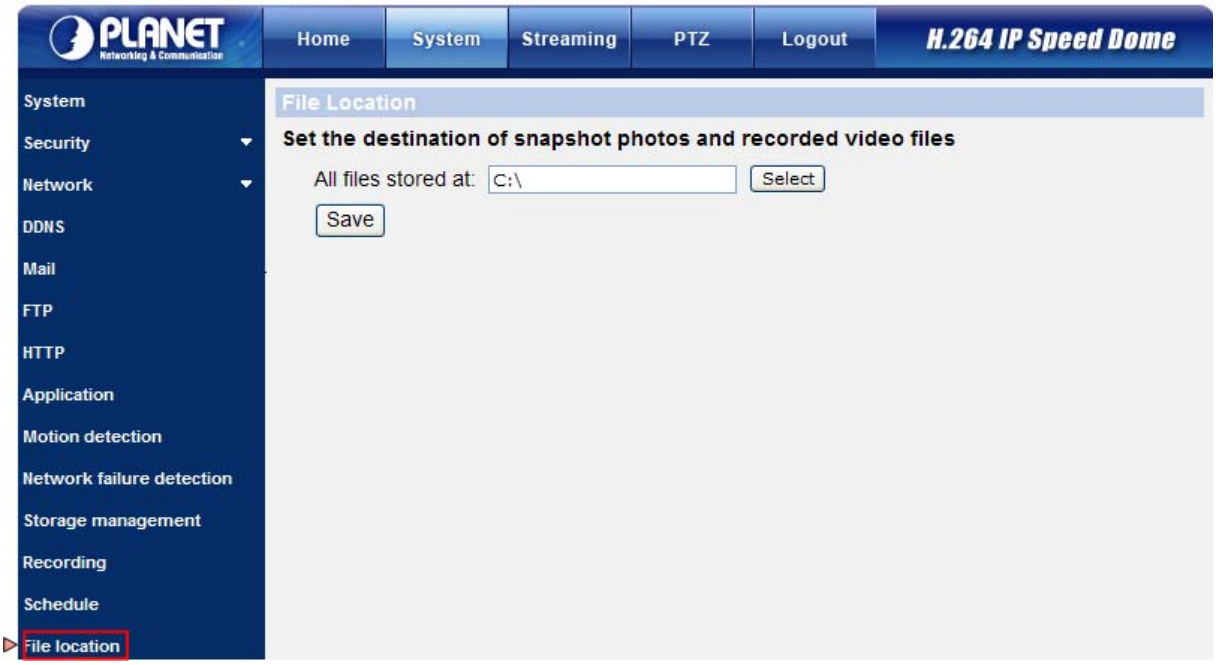
Please click on the <Save> button for confirming the schedule mode.

**Terminating Micro SD/SDHC Card Recording**

Select <Disable> to terminate the recording function.

### 4.3.13 File Location

Users can specify a storage location for the snapshots and live video recording. The default setting is: C:\. Once confirm the setting, press “Save,” and all the snapshots and recording will be saved in the designated location.



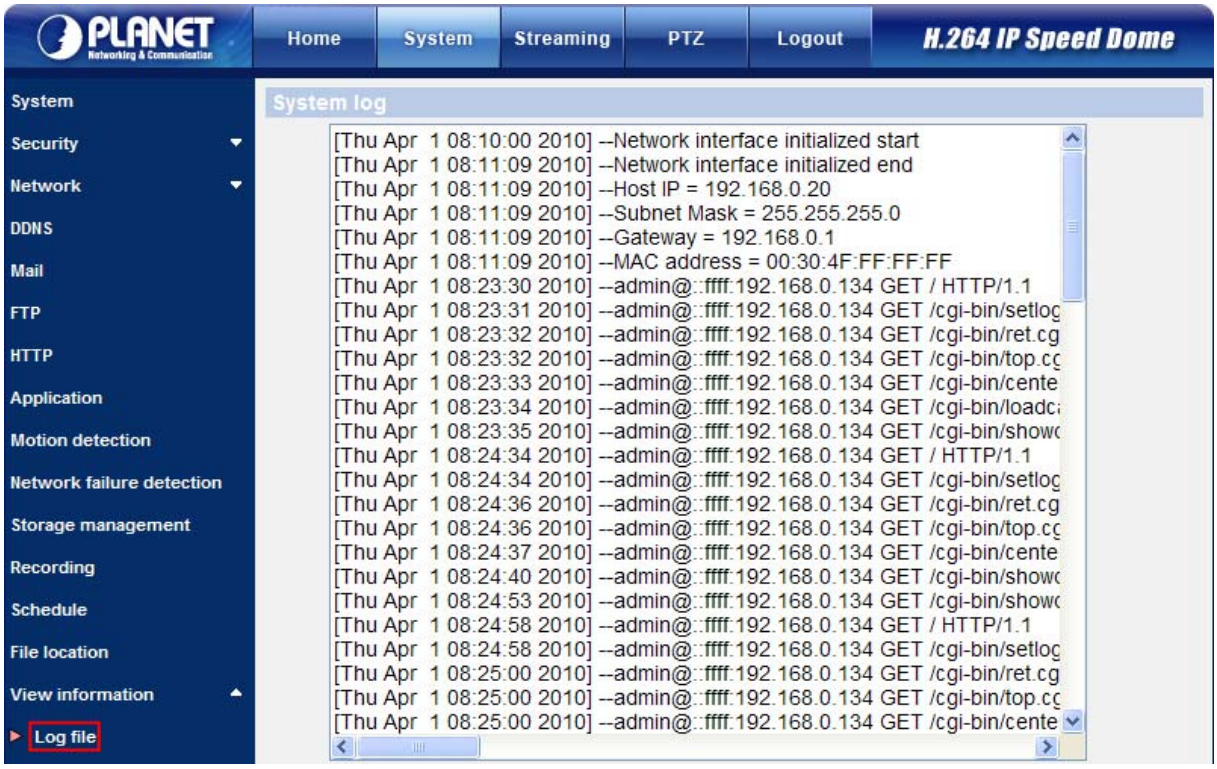

| | |
|---|---|
| Note | Please make sure the selected file path contains valid characters such as letters and numbers. |

### 4.3.14 View information

Click on the link to view the system log file. The content of the file provides useful information about configuration and connections after system boot-up.

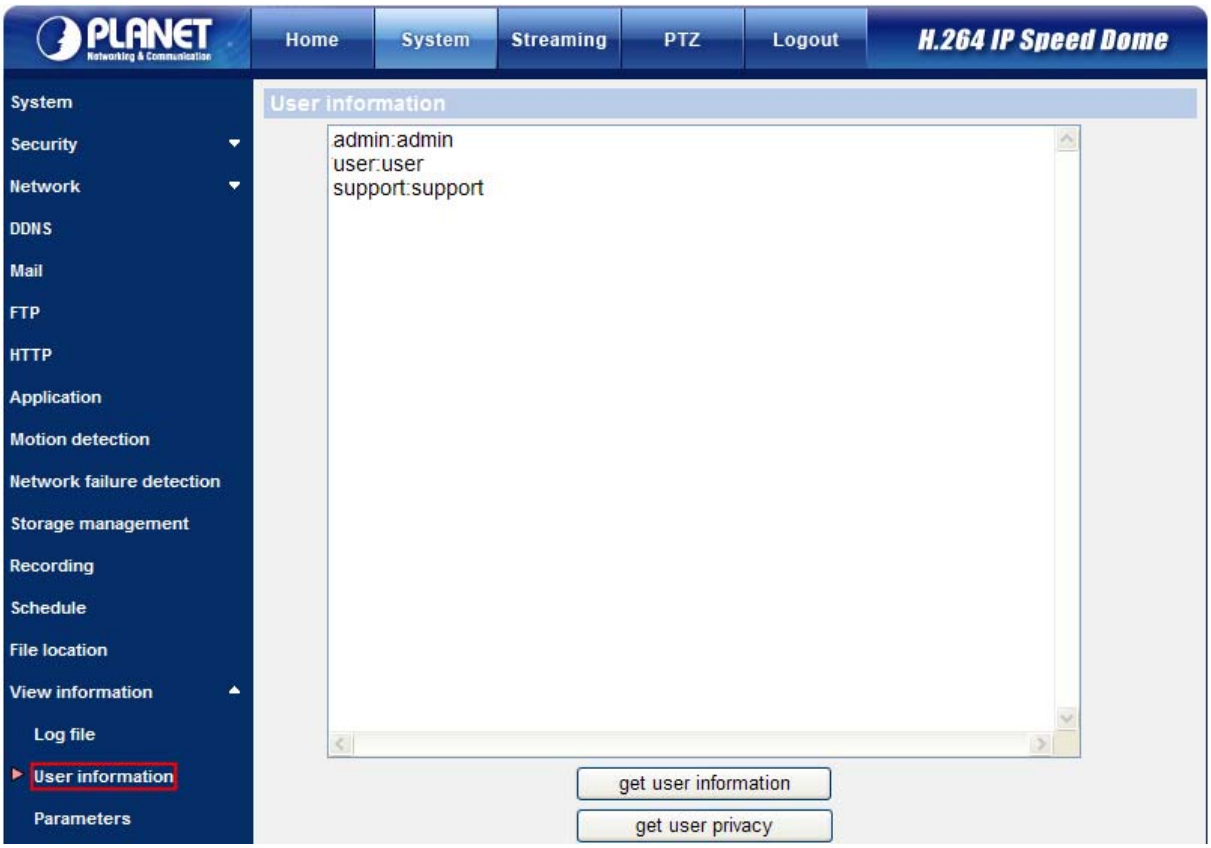
#### 4.3.14.1 Log File

The View Log File function can be found under this path: **System> View Log File**.


Home
System
Streaming
PTZ
Logout
H.264 IP Speed Dome
System
Security
Network
DDNS
Mail
FTP
HTTP
Application
Motion detection
Network failure detection
Storage management
Recording
Schedule
File location
View information
Log file
System log
[Thu Apr 1 08:10:00 2010] --Network interface initialized start
[Thu Apr 1 08:11:09 2010] --Network interface initialized end
[Thu Apr 1 08:11:09 2010] --Host IP = 192.168.0.20
[Thu Apr 1 08:11:09 2010] --Subnet Mask = 255.255.255.0
[Thu Apr 1 08:11:09 2010] --Gateway = 192.168.0.1
[Thu Apr 1 08:11:09 2010] --MAC address = 00:30:4F:FF:FF:FF
[Thu Apr 1 08:23:30 2010] --admin@::ffff:192.168.0.134 GET / HTTP/1.1
[Thu Apr 1 08:23:31 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/setlog
[Thu Apr 1 08:23:32 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/ret.cg
[Thu Apr 1 08:23:32 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/top.cg
[Thu Apr 1 08:23:33 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/cente
[Thu Apr 1 08:23:34 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/loadc
[Thu Apr 1 08:23:35 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/showc
[Thu Apr 1 08:24:34 2010] --admin@::ffff:192.168.0.134 GET / HTTP/1.1
[Thu Apr 1 08:24:34 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/setlog
[Thu Apr 1 08:24:36 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/ret.cg
[Thu Apr 1 08:24:36 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/top.cg
[Thu Apr 1 08:24:37 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/cente
[Thu Apr 1 08:24:40 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/showc
[Thu Apr 1 08:24:53 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/showc
[Thu Apr 1 08:24:58 2010] --admin@::ffff:192.168.0.134 GET / HTTP/1.1
[Thu Apr 1 08:24:58 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/setlog
[Thu Apr 1 08:25:00 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/ret.cg
[Thu Apr 1 08:25:00 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/top.cg
[Thu Apr 1 08:25:00 2010] --admin@::ffff:192.168.0.134 GET /cgi-bin/cente

#### 4.3.14.2 View User Information

The View User Information function can be found under this path: **System> View User Information**.




The Administrator can view each added user's login information and privileges (refer to the section Security).

**Getting User Information**

All the users in the network will be listed in the <User information> zone, as "**User: 4321**." It indicates that one user's login username is "User", and password is "4321".

**Get User Privacy**

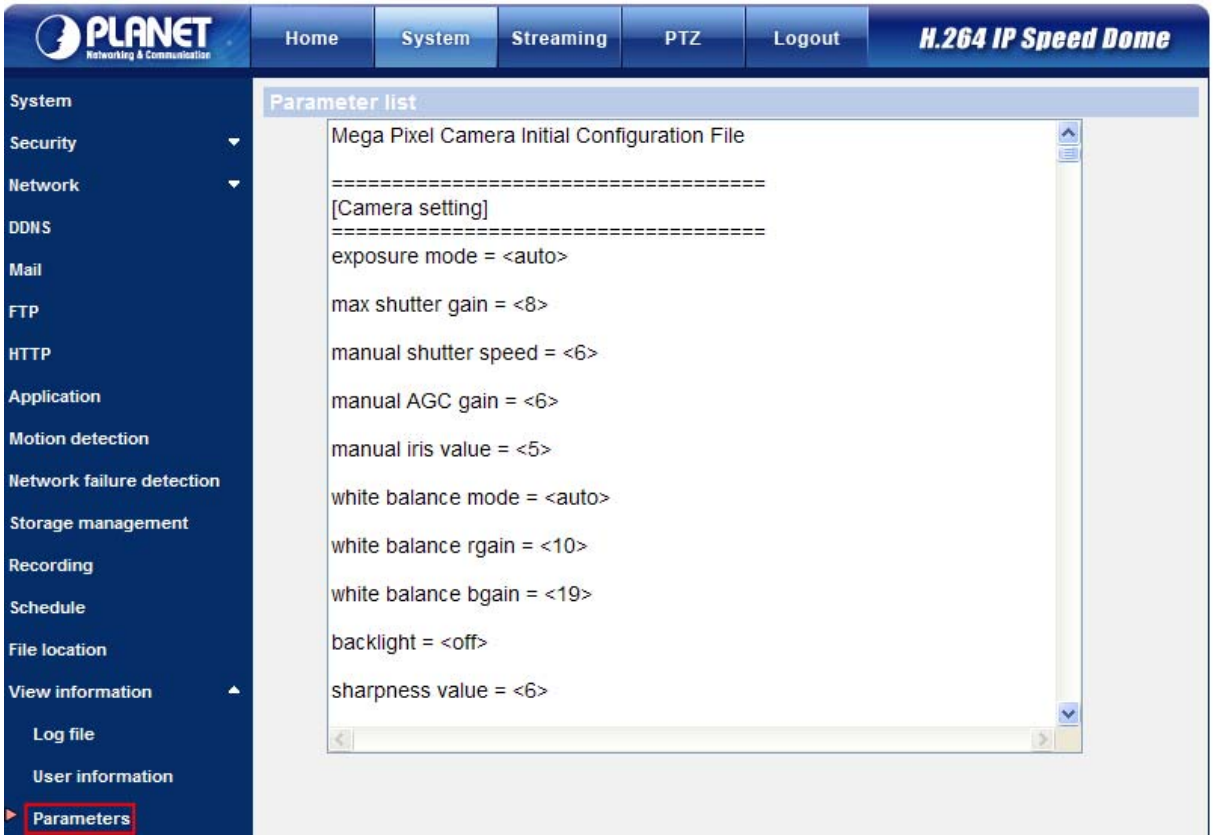
Click on <get user privacy> at the bottom of the page, and the Administrator can view each user's privileges as "**User: 1:1:0:1**."

1:1:0:1= I/O access : Camera control : Talk : Listen (refer to the section Security)

Therefore, it denotes the user is granted privileges of I/O access, Camera control and Listen.

#### 4.3.14.3 View Parameters

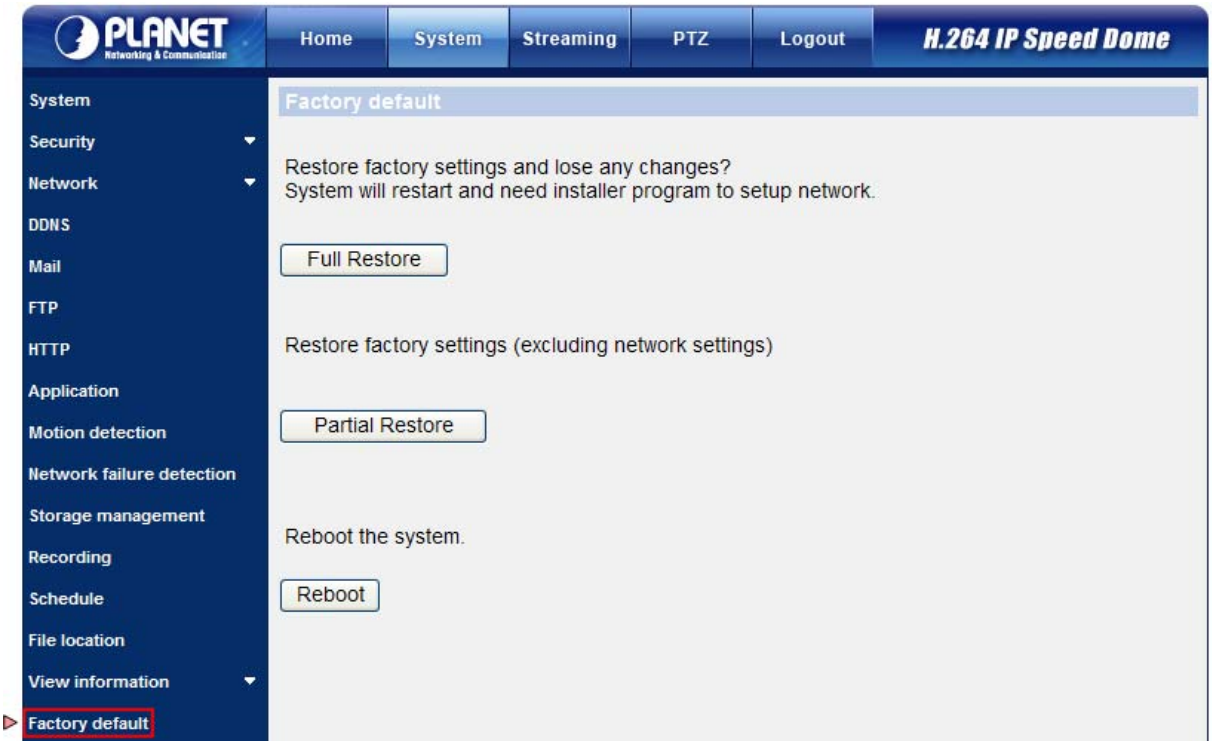
The View Parameters function can be found under this path: **System> View Parameter.**




Click on this item to view the entire system's parameter setting.

### 4.3.15 Factory Default

The factory default setting page is shown below. Follow the instructions to reset the IP Camera to factory default setting if needed.




**Full Restore**

Click on the “Full Restore” button to recall the factory default settings. Then the system will restart in 30 seconds.

| | |
|---|---|
| Note | The IP address will be restored to default. |

**Partial Restore**

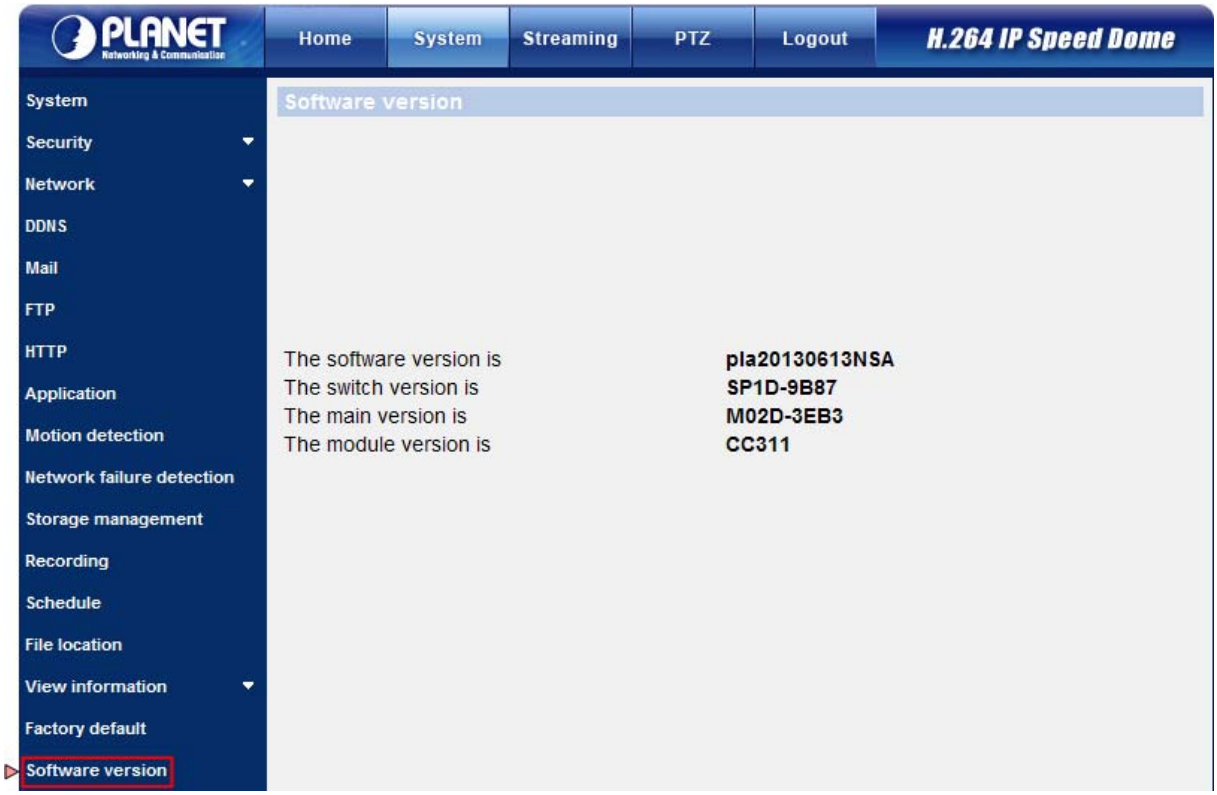
Click on the “Partial Restore” button to recall the factory default settings except the network setting. Then the system will restart in 30 seconds.

**Reboot**

Click on the “Reboot” button, and the system will restart without changing current settings.

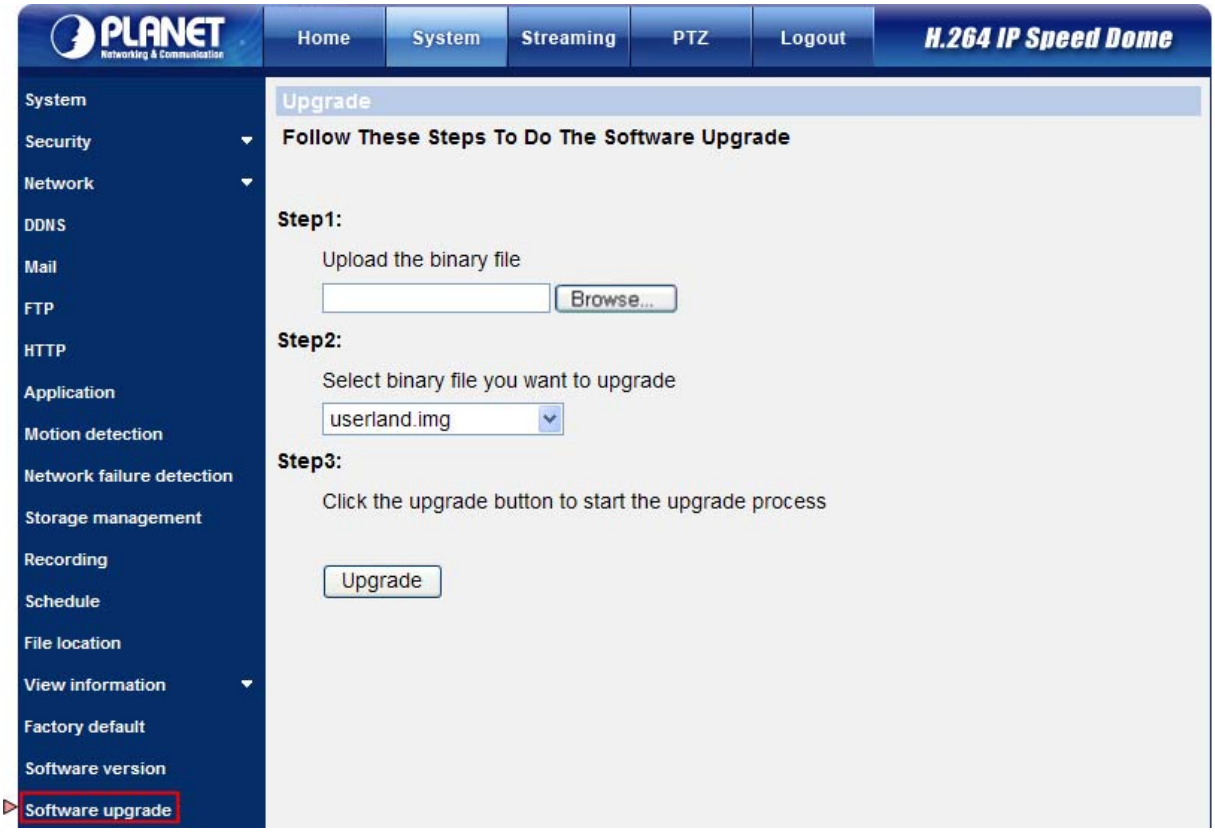
### 4.3.16 Software Version

The current software version is displayed on the software version page, which is shown in the figure below.



### 4.3.17 Software Upgrade

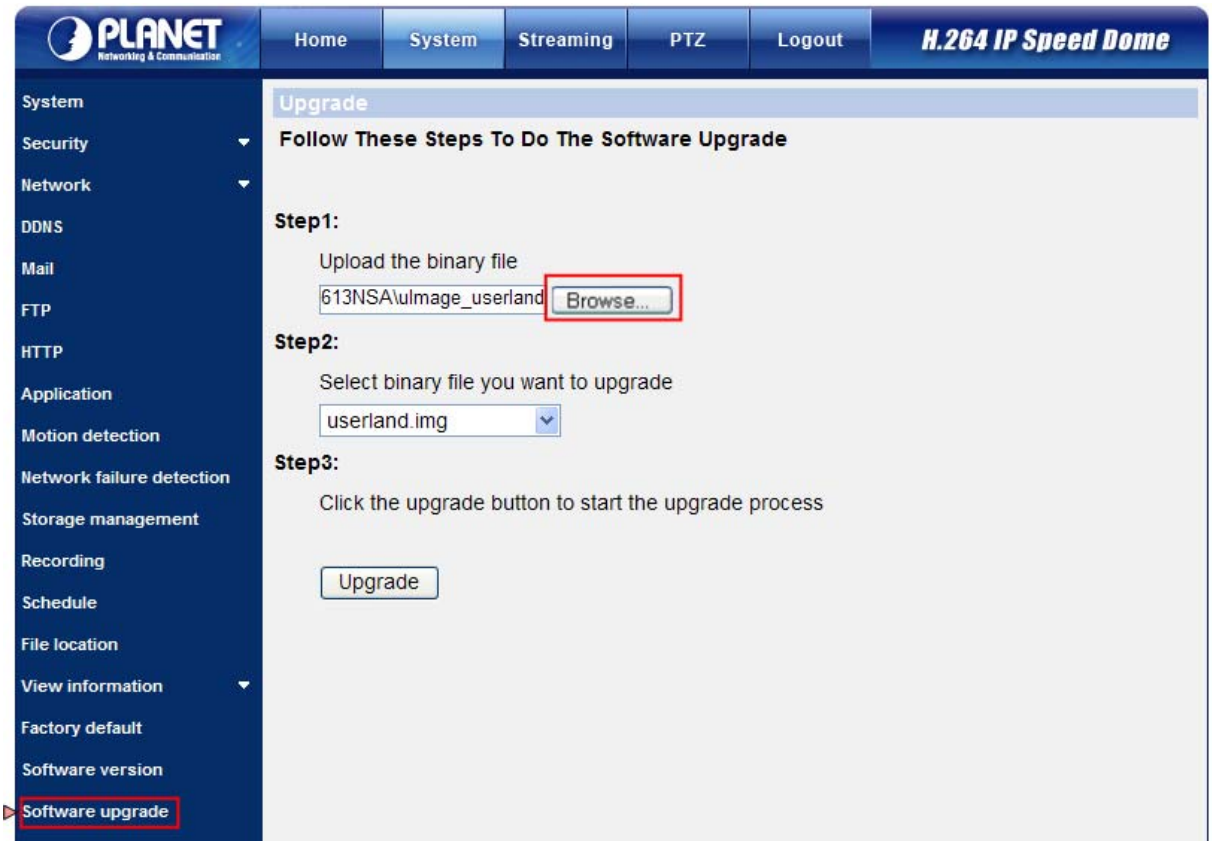
Software upgrade can be carried out in the “Software Upgrade” page as shown below.




| | |
|---|---|
| Note | Make sure the upgrade software file is available before carrying out software upgrade. |

The procedure of software upgrade is as follows:

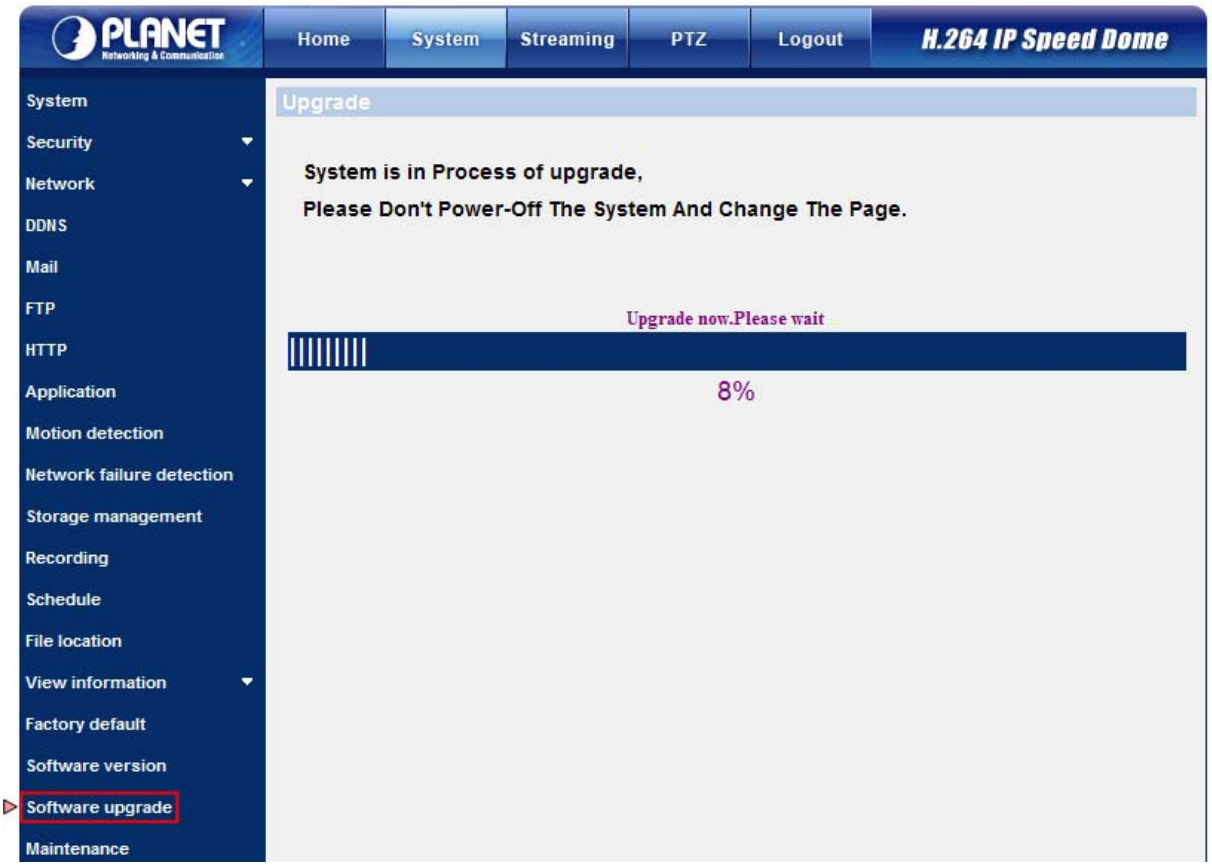
**Step 1:** Click “Browse” and select the binary file to be uploaded, ex.Userland.jffs2.




| | |
|---|---|
| Note | Do not change the upgrade file name, or the system will fail to find the file. |

**Step 2:** Pull down the upgrade binary file list and select the file you want to upgrade; in this case, select "userland.jffs2."

**Step 3:** Press "Upgrade". The system will first check whether the upgrade file exists or not, and then begin to upload the upgrade file. Subsequently, the upgrade status bar will display on the page. When it runs to 100%, the upgrade process is finished.




After the upgrade process is finished, the viewer will return to Home page.

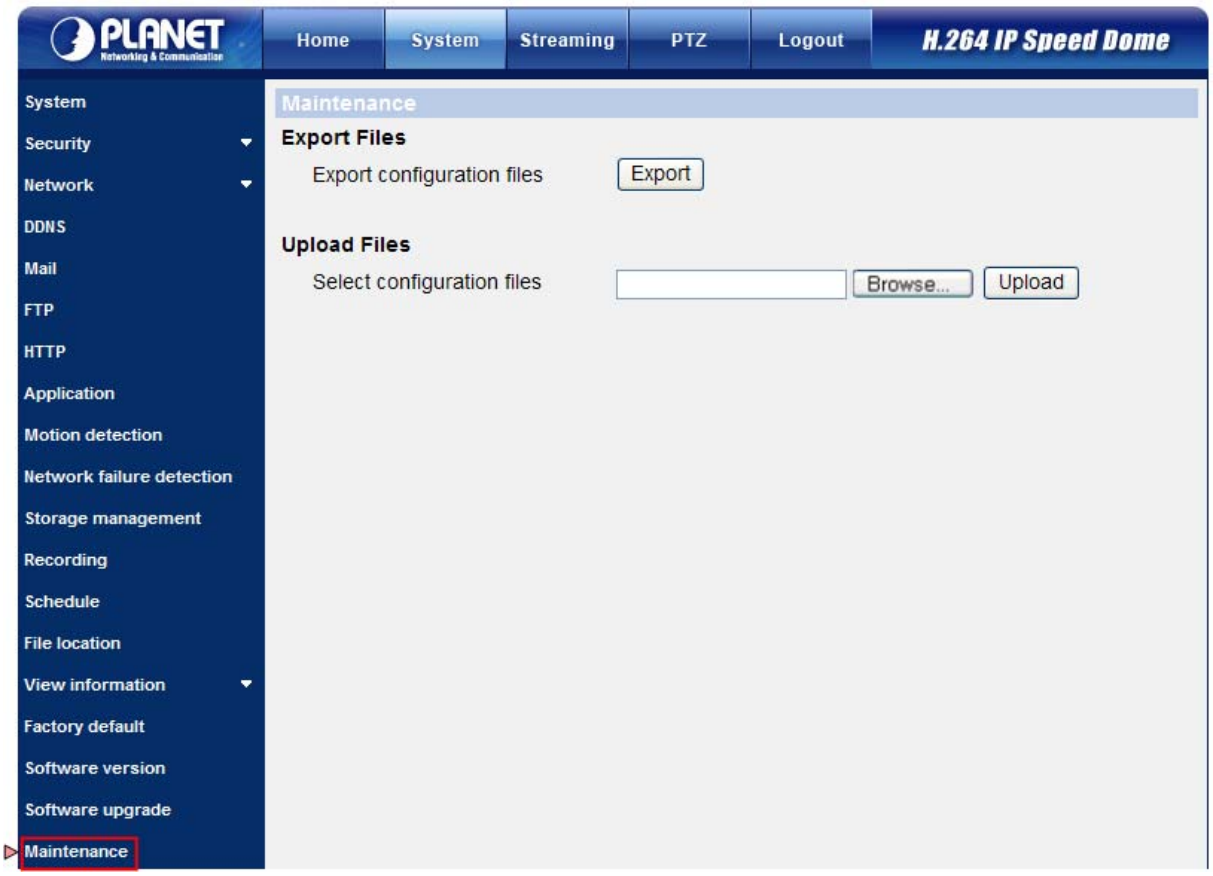
**Step 4:** Close the video browser.

**Step 5:** Click “Control Panel”, and then double click “Add or Remove Programs.” On the “Currently install programs” list, select “DCViewer” and click the button “Remove” to uninstall the existing DC Viewer.

**Step 6:** Open a new web browser, re-login the IP Camera, and then allow the automatic download of DC Viewer.

### 4.3.18 Maintenance

The Maintenance setting can be found under this path: **System> Maintenance**.




Users can export configuration files to a specified location and retrieve data by uploading an existing configuration file to the IP Camera.

**Export**

Users can save the system settings by exporting the configuration file (.bin) to a specified location for future use. Click on the <Export> button, and the popup File Download window will come out. Click on <Save> and specify a desired location for saving the configuration file.

**Upload**

To copy an existing configuration file to the IP Camera, please click on <Browse> to select the configuration file first, and then click on the <Upload> button for uploading.

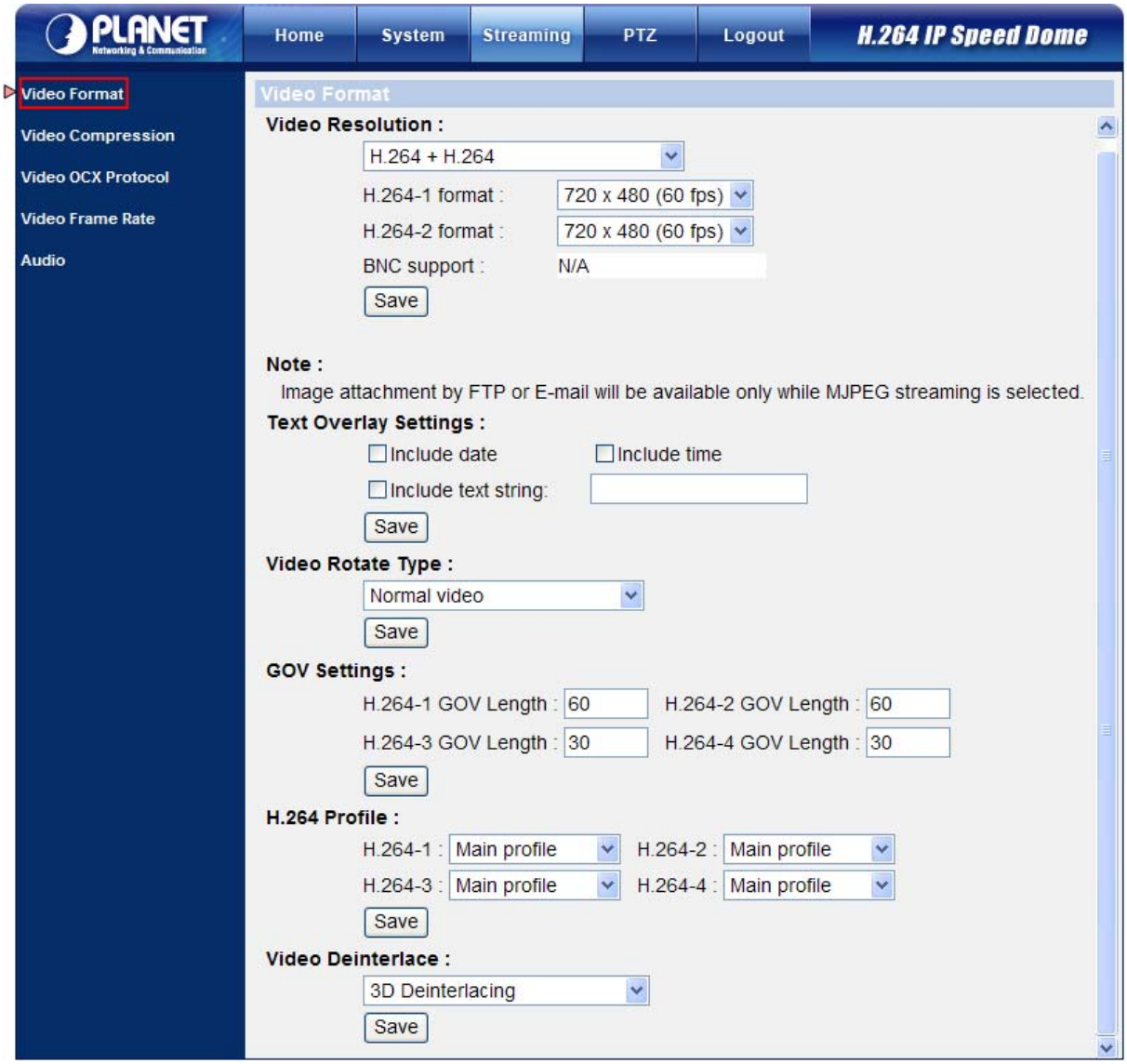
## 4.4 Video and Audio Streaming Settings

Under the tab <Streaming>, there are categories including: <Video Format>, <Video Compression>, <Video OCX Protocol>, <Video Frame Rate>, and <Audio>.

In Streaming, the Administrator can configure specific video resolution, video compression mode, video protocol, audio transmission mode, etc. Further details of these settings will be specified in the following sections.

### 4.4.1 Video format (Video Resolution/ Video Deinterlacing)

The Video Format setting can be found under this path: **Streaming> Video Format**..




**Video Format**

In the Video Resolution section, the available video resolution formats includes MJPEG and H.264. Please refer to the Appendix C: Video Format for more combination details.

Click on <Save> to confirm the setting.

**Text Overlay Settings**

Users can select the items to display data including date/time/text on the live video pane. The maximum length of the string is 20 alphanumeric characters.

Click on <Save> to confirm the Text Overlay setting.

**Video Rotate Type**

Users can change video display type if necessary. Selectable video rotate types include Normal, Flip, Mirror, 90 degree clockwise, 180 degree rotate and 90 degree counterclockwise. Differences among these types are illustrated below.

Suppose the displayed image of the IP Camera is shown in the figure below.

To rotate the image, users can select <Flip>, for instance. Then the displayed image will be reversed as shown below.

The following is the description of the different video rotate types.

- **Flip**

If select <Flip>, the image will be rotated vertically.

- **Mirror**

If select <Mirror>, the image will be rotated horizontally.

- **90 Degree Counter-/clockwise**

Selecting <90 Degree Counter-/clockwise> will make the image 90° counter-/clockwise inversed.

- **180 Degree Rotate**

Selecting <180 Degree> will make the image 180°inversed.

Click on <Save> to confirm the setting.

**GOV Settings**

Users can set the GOV length to determine the frame structure (I-frames and P-frames) in a video stream for saving bandwidth. Longer GOV means decreasing the frequency of I-frames. Click <Save> to confirm the GOV setting.

**H.264 Profile**

Users can set each H.264 Profile to <Baseline Profile>, <Main Profile> or <High Profile> according to its compression needs. With the same bit rate, the higher the compression ratio, the better the image quality is. The default setting is <Main Profile>.

**NOTE:** Please make sure the higher compression ratio is supported by system before setup.

**Video Deinterlace**

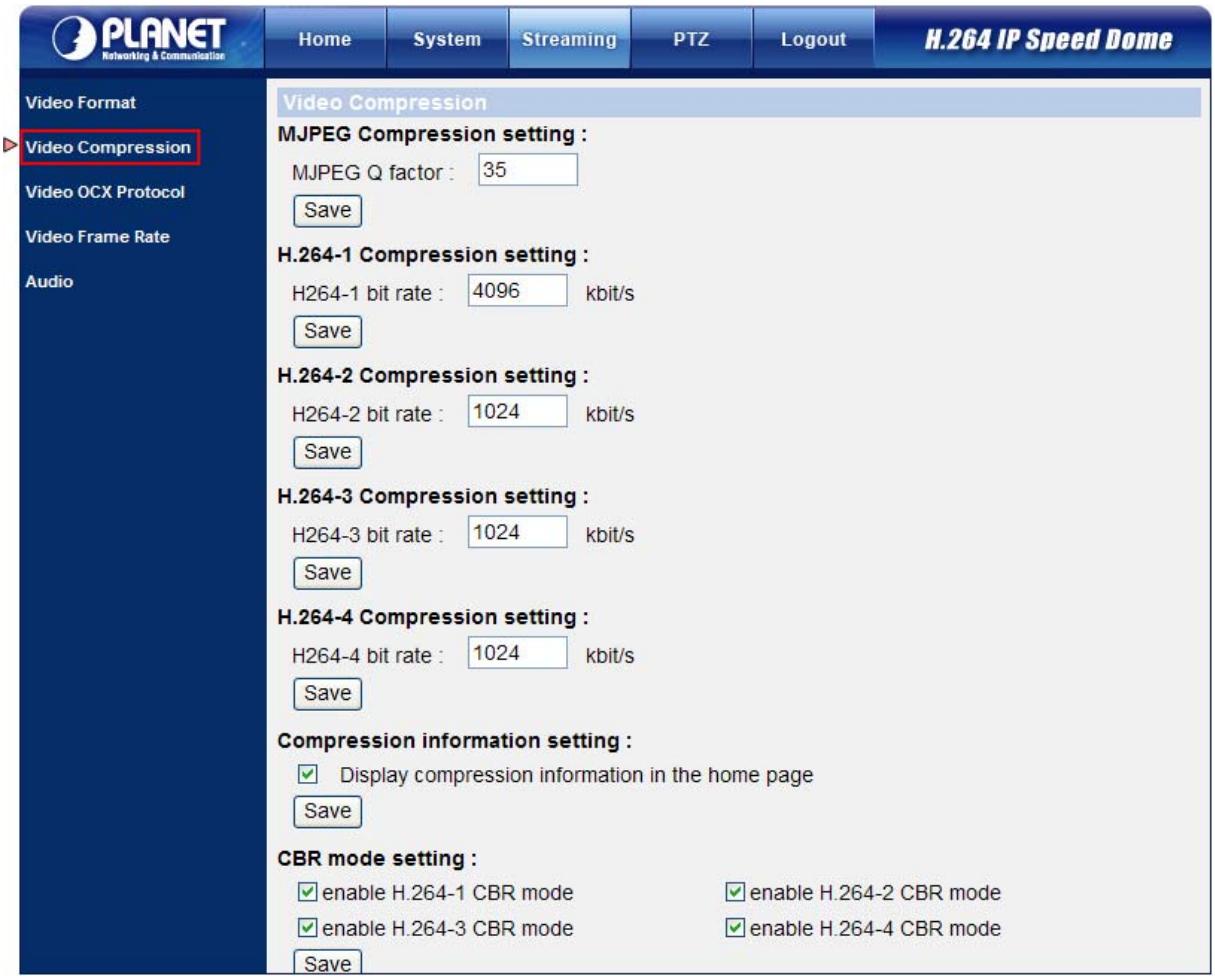
The Network Speed Dome Camera supports de-interlacing function. Users can either choose to activate de-interlacing function or disable the function by selecting a mode from the list as shown below:

- **3D Deinterlacing**
- **Intra Field Deinterlacing**
- **Inter Field Deinterlacing (off)**

Click on <Save> to confirm Video Format setting.

### 4.4.2 Video Compression

The Video Compression setting can be found under this path: **Streaming> Video Compression**.




Users can select a proper MJPEG/H.264 compression mode on the video compression page, depending on the application.

**MJPEG Q (Quality) factor**

Higher value implies higher bit rates and higher visual quality. The default setting of MJPEG Q factor is 35; the setting range is from 1 to 70.

**H.264-1 / H.264-2 / H.264-3 / H.264-4 bit rate**

The default setting of H.264-1 is 4096 kbit/s and for H.264-2 / H.264-3 / H.264-4 is 1024 kbit/s; the setting range for H.264-1 is from 64 to 8192 kbps and for H.264-2 / H.264-3 / /H.264-4 is from 64 to 2048 kbit/s.

**Display Compression Information**

Users can also decide whether to display compression information on the Home page.

**CBR Mode Setting**

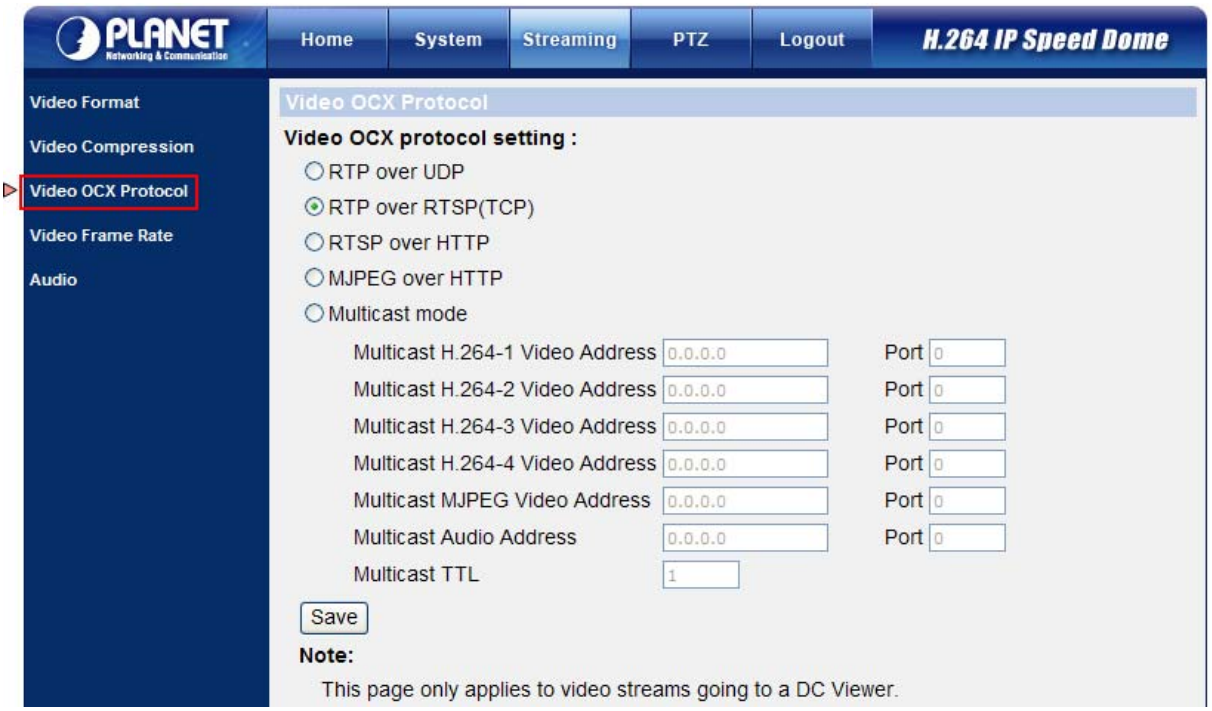
The CBR (Constant Bit Rate) mode could be the preferred bit rage mode if the bandwidth available is limited. It is important to take account of image quality while choosing to use CBR mode.

Click “Save” to confirm the setting.

### 4.4.3 Video OCX Protocol

The Video OCX Protocol setting can be found under this path: **Streaming> Video OCX Protocol**.

.




On the Video OCX protocol setting page, users can select RTP over UDP, RTP over TCP, RTSP over HTTP or MJPEG over HTTP, for streaming media over the network. In the case of multicast networking, users can select the Multicast mode.

Video OCX protocol setting options include:

- **RTP over UDP/ RTP over RTSP(TCP)/ RTSP over HTTP/ MJPEG over HTTP**

Select a mode according to your data delivery requirements.

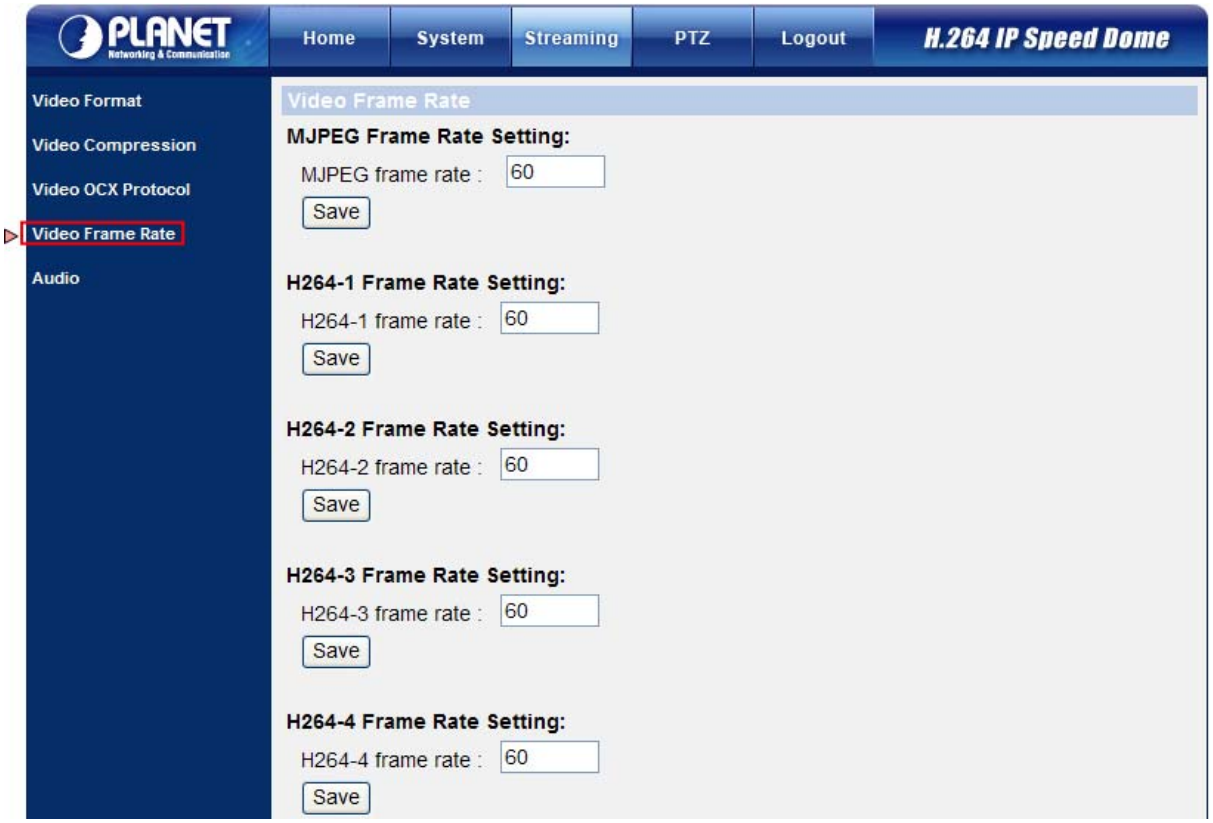
- **Multicast Mode**

Enter all required data, including <multicast IP address>, <H.264 video port>, <MJPEG video port>, <Audio Port> and <TTL> into each blank.

Click on <Save> to confirm the setting.

### 4.4.4 Video Frame Rate

The Video Frame Rate setting can be found under this path: **Streaming> Video Frame Rate**..




Video frame rate is for setting the frames per second (fps) if necessary.

**MJPEG/ H.264-1/ H.264-2/ H.264-3/ H.264-4 Frame Rate**

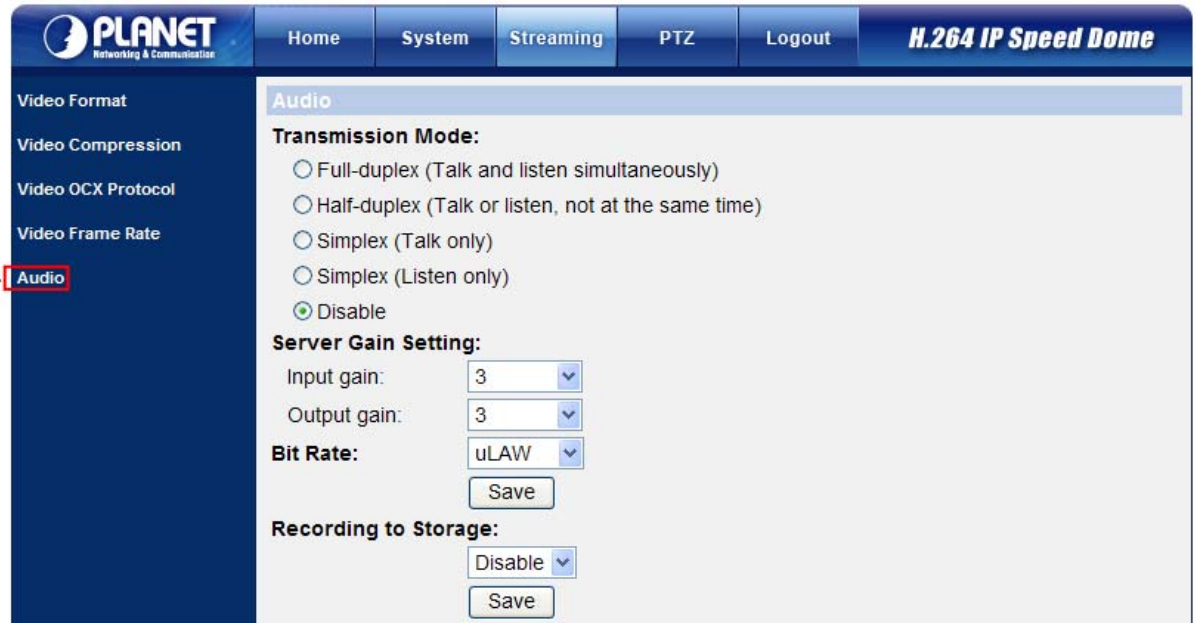
The default setting of MJPEG/H.264-1/H.264-2/ H.264-3/ H.264-4 Frame Rate is 30 fps; the setting range is from 1 to 30.

Click on <Save> to confirm the setting.

| | |
|---|---|
| Note | Lower frame rate will decrease video smoothness. |

### 4.4.5 Audio (Audio Mode and Bit Rate Settings)

The Audio Mode setting can be found under this path: **Streaming> Audio**




On the Audio page, the Administrator can select one transmission mode and audio bit rate.

**Transmission Mode**

- **Full-duplex (Talk and Listen simultaneously)**

In the Full-duplex mode, the local and remote sites can communicate with each other simultaneously, i.e. both sites can speak and be heard at the same time.

- **Half-duplex (Talk or Listen, not at the same time)**

In the Half-duplex mode, the local/remote site can only talk or listen to the other site at a time.

- **Simplex (Talk only)**

In the Talk only Simplex mode, the local/remote site can only talk to the other site.

- **Simplex (Listen only)**

In the Listen only Simplex mode, the local/remote site can only listen to the other site.

- **Disable**

Select the item to turn off the audio transmission function.

**Server Gain Setting**

Set the audio input/output gain levels for sound amplification. The audio gain values are adjustable from 1 to 6. The sound will be turned off if the audio gain is set to “Mute”.

**Bit Rate**

Selectable audio transmission bit rates include 16 kbps (G.726), 24 kbps (G.726), 32 kbps (G.726), 40

kbps (G.726), uLAW (G.711) and ALAW (G.711). Both uLAW and ALAW signify 64 kbps but in different compression formats. Higher bit rate will let higher audio quality and require bigger bandwidth.

Click “Save” to confirm the setting.

## 4.5 PTZ Settings

Under the tab <PTZ>, there are categories including: <Preset>, <Cruise>, <Auto Pan>, <Sequence>, <Home>, <Tilt Range>, <Camera- Exposure>, <Camera- WB>, <Camera- Misc1>, <Camera- Misc2>, and <Camera- Default>.

### 4.5.1 Preset

The Preset Programming can be found under this path: PTZ> Preset.

Totally 256 Preset Points can be programmed for the Speed Dome IP Camera. Please refer to the instructions below to set a Preset Point.

**Preset Setting**

To set up a Preset Point, please first move the cursor to the live view pane. Then left click and drag the red pointer with PTZ controls to a desired position and adjust the fine zoom/ focus ratio. Subsequently, assign a number to the current position from the drop-down Number List, and enter its descriptive name. Click on the button <Set> to save the settings mentioned above.

**Preset Go**

To have the camera move to a specified Preset position, please select the Preset Point from the drop-down Preset list. Then the camera will readily move to the target position.

### 4.5.2 Cruise

The Cruise Programming can be found under this path: **PTZ> Cruise.**

The Speed Dome IP Camera supports up to eight Cruise Paths. Please follow the instructions below for Cruise Path setup.

**Cruise Setting**

To set up a Cruise Path, please first select a path number from the drop-down list. Then move the cursor to the live view pane, and move the camera to a desired view (PTZ controls) as the start point of a Cruise Path. Press the “Set” button of “Record Start” and start programming the Cruise Path via PTZ controls. When finishing programming, press the “Set” button of “Record End” to quit. Then this Cruise Path will be automatically recorded.

**Cruise Run**

Select the specified Cruise Path from the drop-down list, press the “Run” button, and then the camera will start touring around as recorded.

To view the camera touring around in full screen mode, please move the cursor onto the live view pane, right-click and left-click to select “full screen”. Then users can view the camera navigation in full screen.

To stop running a Cruise Path, simply move the cursor to the live view pane and move the camera in any direction.

### 4.5.3 Auto Pan

The Auto Pan Programming can be found under this path: **PTZ> Auto Pan.**

The Speed Dome IP Camera supports four Auto Pan Paths. Please refer to the instructions below to set an Auto Pan Path.

**Auto Pan Setting**

To set up an Auto Pan Path, please first select a path number from the drop-down list. Then move the cursor to the live view pane, and move the camera to a desired view as the Start Point of an Auto Pan Path. Click the “Set” button of the “Start Point”, and the current view will be automatically saved as the start point of the Auto Pan Path.

| | |
|---|---|
| Note | The room ratio of an Auto Pan’s Start Point will persist throughout the whole path.. |

Enter the speed ratio into the Speed field; the speed ratio ranges from 0 (low) to 3 (fast). Then choose to run the Auto Pan Path in right/left direction from the Direction drop-down list.

Move the camera to another desired position as the end point of the Auto Pan Path. Click the “Set” button of the “End Point” for saving the setting.

**Auto Pan Run**

Select the specified Auto Pan Path from the drop-down list, press the “Run” button, and then the camera will start moving horizontally as recorded.

To view the camera panning in full screen mode, please move the cursor onto the live view pane, right-click and left-click to select “fullscreen”. Then users can view the camera navigation in full screen.

To stop running an Auto Pan Path, simply move the cursor to the live view pane and move the camera in any direction.

### 4.5.4 Sequence

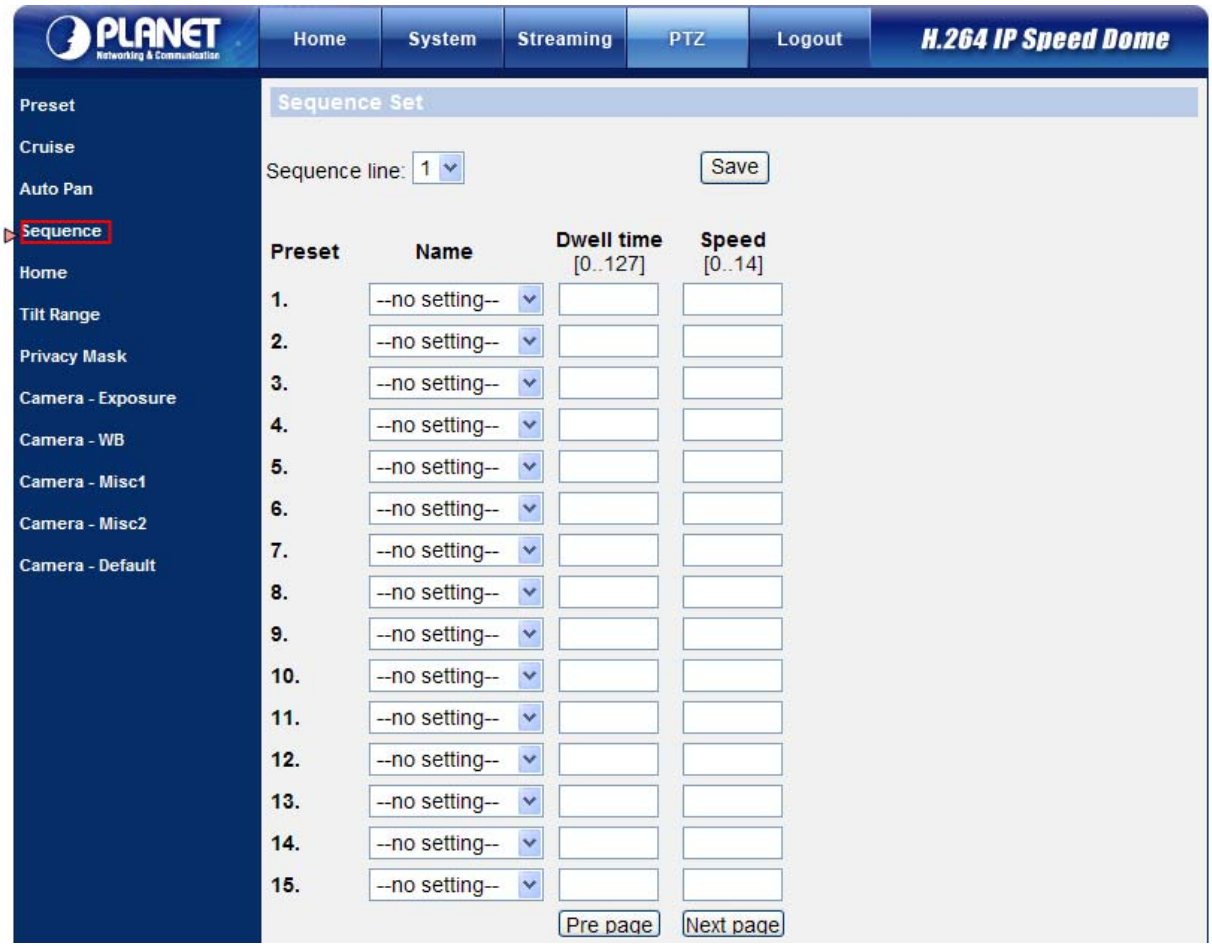
The Sequence Line Programming can be found under this path: **PTZ> Sequence.**

The Speed Dome IP Camera supports totally eight Sequence Lines; each Sequence Line consists of up to 64 Preset Points. Please refer to the instructions below to program a Sequence Line.

| | |
|---|---|
| Note | Before setting this function, users must pre-define at least two Preset Points. |

**Sequence Setting**

Please press the “Edit” button in “Sequence Setting” section to enter the Sequence setting menu as shown on the next page.




- **Sequence Line**

Please select the number of Sequence Line to be set from the drop-down list on top of the Sequence setting menu.

- **Sequential Preset Points Setting**

Please set up each Preset Point of the programmed Sequence Line in order, assigning a Preset Point from the <Name> list for the specified number of Preset Point (click on <Pre Page> or <Next Page> button to reach preset point 1 to 256) and entering both Dwell Time (0~255) and Speed (0~14) into the corresponding fields.

Please click on the <Save> button on top of the Sequence setting menu, when finishing the sequence Preset Points setting.

**Sequence Run**

Select the specified Sequence Line from the drop-down list, press the “Go” button, and then the camera will start moving forward each scene sequentially as programmed.

To view the camera executing a Sequence Line in full screen mode, please move the cursor onto the

live view pane, right-click and left-click to select “fullscreen”. Then users can view the camera navigation in full screen.

To stop running the Sequence Line, simply move the cursor to the live view pane and move the camera in any direction.

### 4.5.5 Home

The Home Function can be found under this path: **PTZ> Home.**

Users are able to set an operation mode to ensure constant monitoring. If the Speed Dome IP Camera idles for a period of time, the selected function will be activated automatically; this is the HOME function. The HOME function allows constant and accurate monitoring to avoid the Dome Camera idling or missing events.

**Home Setting**

- Activate/Disable Home Function

Select “On” or “Off” to activate or disable the Home function. Then press the “Set” button to save the setting.

- Time

The time here represents the duration of camera idle time previous to running a Preset Point/Cruise Line/Auto Pan Path/Sequence Line. When the Home function is activated, the Dome Camera will start to count down when it idles, and then execute the predefined action as time expires. The time period

ranges from 1 to 128 minutes; please specify it in the field.

- Action Type

Please select a Home action type (Preset Point/Cruise Line/Auto Pan Path/Sequence Line) and specify the number of Preset Point/Cruise Line/Auto Pan Path/Sequence Line from the drop-down “Type” and “Line” lists. Press the button “Set” to save the Home settings.

### 4.5.6 Tilt Angle

The Tilt Range Setting can be found under this path: **PTZ> Tilt Range.**

The Speed Dome IP Cameras tilt angle is adjustable from minimum -10° to maximum 100°. Please enter the desired min. and max. tilt angle into the corresponding fields respectively. Press the “Set” button to save the tilt angle settings.

### 4.5.7 Privacy Mask

The Privacy Mask function aims to avoid any intrusive monitoring. When setting a mask, it is suggested to set it at least twice bigger (height and width) than the masked object. The Speed Dome IP Camera will assume the center of the selected view as a starting point. Therefore, please keep the target object/region nearly positioned in the center of the scene. Refer to the following descriptions for setting a privacy mask.

| | |
|---|---|
| Note | The Image Flip function (see section 4.5.10 Camera—Miscellaneous Setups Menu 1) and the Image Inverse function (see section 4.5.11 Camera—Miscellaneous Setups Menu 2) will be disabled automatically while the Privacy Mask function is enabled. |

**Mask Setting**

- Activate/Disable Privacy Mask Function

The Privacy Mask function can be activated or disabled. Press the button “Set” to save the setting.

- Activate/Disable Transparency Mask

The Privacy Mask can be set as transparency if necessary.

- Color Setting

Select a desired color from the “Color” drop-down list for the specified Privacy Mask.

Press the button “Set” to save the Privacy Mask’s color properties.

- Mask Number

Specify the number of the programmed Privacy Mask in the corresponding field. The number of Privacy

Masks varies with camera models.

- Mask Size

The size of a Privacy Mask can be customized through specifying its horizontal and vertical size. The value of “Horizontal Size” ranges from 1 ~80, while that of “Vertical Size” ranges from 1 ~60.

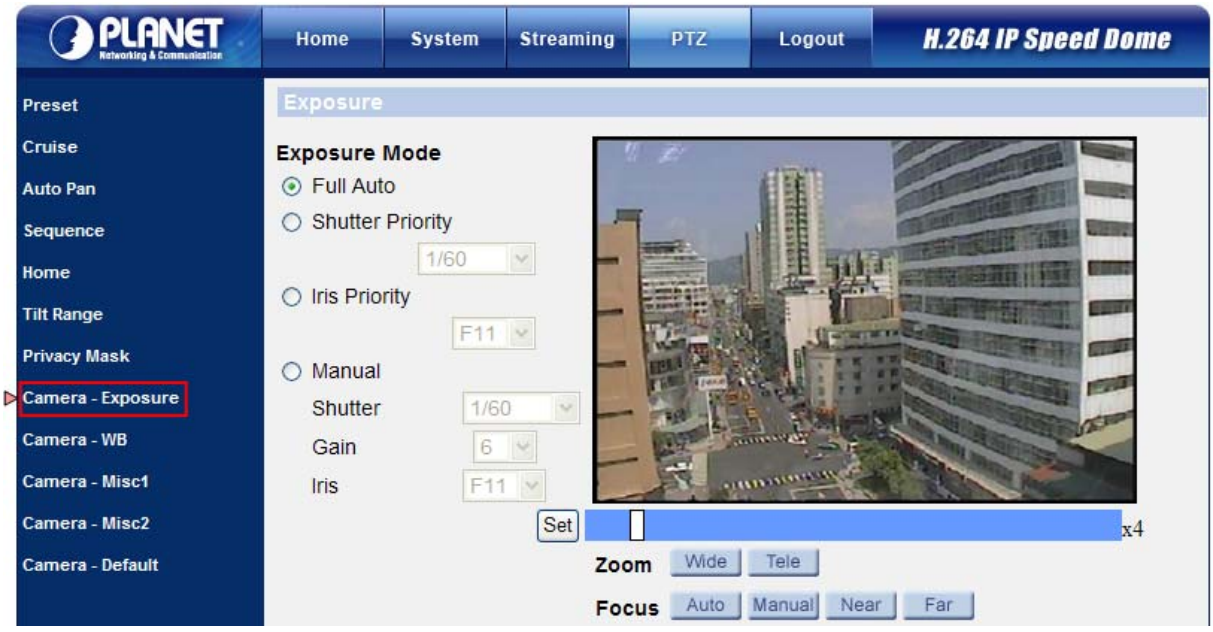
After finishing the setup of a Privacy Mask, press the button “Add” to save the programmed Privacy Mask.

**Mask Clearing**

In this section, users can delete an existing Privacy Mask. Please select the Privacy Mask to be removed from the drop-down list, and press the button “Clear”. Then the selected Privacy Mask will readily disappear.

### 4.5.8 Camera - Exposure

On the Exposure Mode setting page, users can select either the “Full Auto” mode or adjust the parameter of the Shutter/Iris/Bright Priority mode for optimized video output in accordance with the operating environment.




**Full Auto Mode**

In this mode, the camera’s Shutter Speed, Iris and AGC (Auto Gain Control) control circuits work together automatically to get consistent video output level.

**Shutter Priority Mode**

In this mode, it is shutter speed that takes main control of exposure. The range of shutter speed is from 1/10000 to 1/50. Users could select suitable shutter speed according to the environmental illuminance.

**Iris Priority Mode**

In this mode, it is iris that has premier priority in control of exposure. The value of iris is adjustable from F1.6 to F22.

**Manual Mode**

In this mode, users can change the Shutter speed (1/10000 to 1), Gain (1 to 15), and Iris (F1.6 to F22) manually.

### 4.5.9 Camera - WB

A camera needs to find reference color temperature, which is a way of measuring the quality of a light source, for calculating all the other colors. The unit for measuring this ratio is in degree Kelvin (K). Users can select one of the White Balance Control modes according to the operating environment. The following table shows the color temperature of some light sources for reference.

| Light Sources | Color Temperature in K |
|---|---|
| Cloudy Sky | 6,000 to 8,000 |
| Noon Sun and Clear Sky | 6,500 |
| Household Lighting | 2,500 to 3,000 |
| 75-watt Bulb | 2,820 |
| Candle Flame | 1,200 to 1,500 |

**Auto Mode**

In this mode, white balance works within its color temperature range and calculates the best-fit white

balance.

**Indoor/outdoor Mode**

Select for indoor or outdoor mode.

**ATW Mode (Auto Tracing White Balance)**

The Dome Camera takes out the signals in a screen in the range from 2000 K to 10000 K.

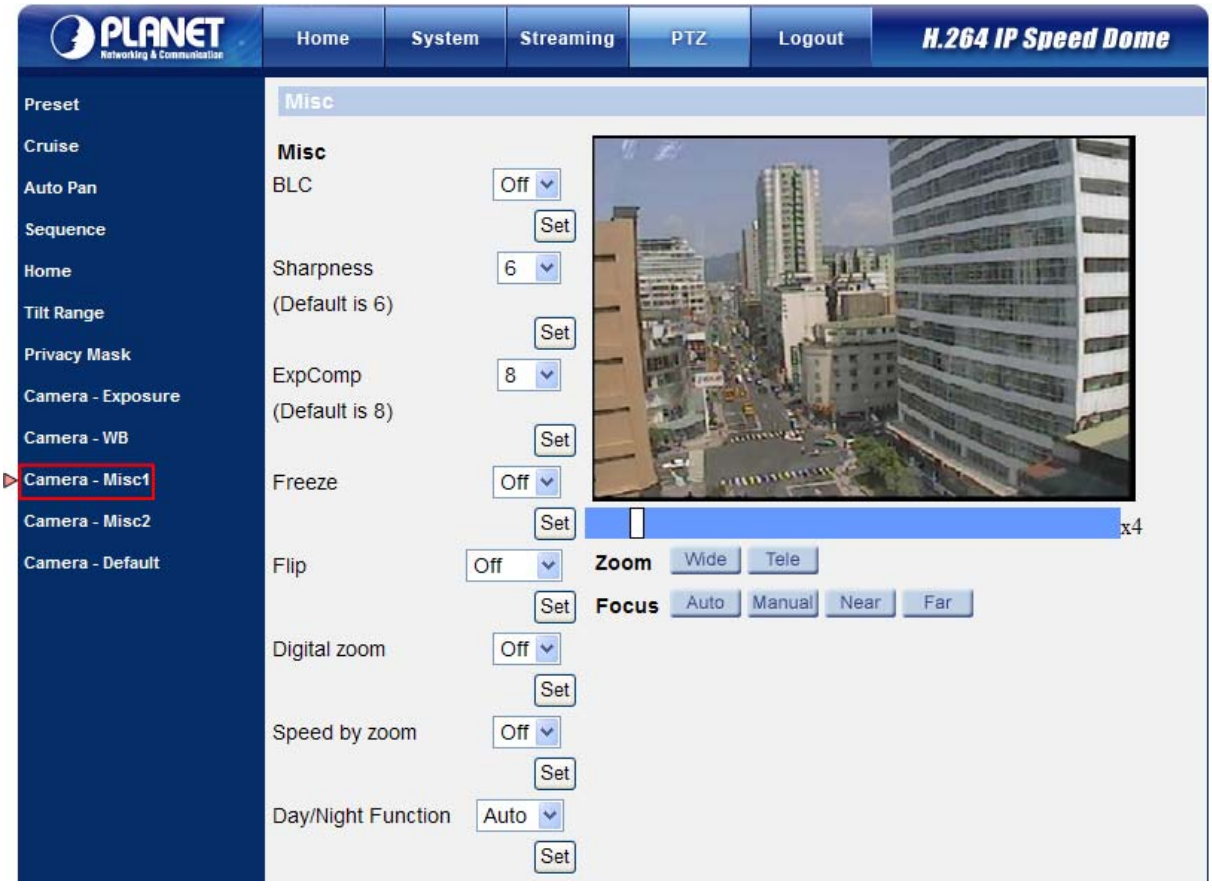
**Manual Mode**

In this mode, users can change the White Balance value manually via specifying R gain and B gain; the range of R/B gain is from 0 to 255.

### 4.5.10 Camera - Miscellaneous Setups Menu 1

The Miscellaneous Setting Menu 1 can be found under this path: **PTZ> Camera- Misc 1.**

In the Camera—Misc (Miscellaneous) Setups Menu 1, users can set various camera parameters including Backlight Compensation (BLC), Sharpness, Exposures Compensation (ExpComp), Image Flip, Speed by Zoom and ICR function. Each setting is specified as follows:



**BLC**

Users can choose to activate or disable the BLC function. Press the button “Set” to save the setting.

**Sharpness**

Increasing the sharpness level can make the image look sharper, especially enhancing the object’s edge. The Sharpness value is adjustable from 1 to 15. Press the button <Set> to confirm the setting.

**ExpComp**

Users can define the value of Exposure Compensation; the value ranges from 1 to 15.

**Freeze**

The Freeze function allows to hold the image while the camera is moving between preset positions such as in Preset mode and Sequence mode. Users can choose to activate or disable the function. Click on <Set> to save the setting.

**Flip**

Users can track an object continuously when it passes through under the Dome Camera with setting Flip to Mechanical (M.E.) mode or Digital Flip (Image) mode.

| | |
|---|---|
| Note | Flip setting is manual-controlled only. If a Preset Position or a point for other function (e.g. Sequence) is set in the position that can only be reached through FLIP motion when Flip function is turned off, the position cannot be reached anymore. |

| | |
|---|---|
| Note | To make the Dome Camera tilt between a specific range, such as -10° to +100° or -10° ~ +190°, please go to the <Tilt Range> setting page to set the tilt angle range. Otherwise, the Dome Camera will tilt 90° as the default setting. |

- **M.E. Mode**

M.E. is a standard mechanical operation. As the Dome Camera tilts to the maximum angle, it will pan 180°, and then continue tilting to keep tracking objects.

- **Image Mode**

IMAGE represents digital IMAGE FLIP, which enables users to keep tracking objects seamlessly; under the mode, almost no delay occurs in comparing with that under the M.E. mode.

| | |
|---|---|
| Note | The Privacy Mask function will be automatically disabled if the Image Flip function is enabled. |

**Digital Zoom**

The network Speed Dome Camera can support up to 12× Digital Zoom. Press the button “Set” to save the setting.

**Speed by Zoom**

Enable this function to adjust the pan/tilt speed automatically by internal algorithm when zooming. The larger zoom ratio leads to the lower rotating speed. Click on <Set> button to save the setting.

**ICR Function**

With the IR cut filter, the camera can still catch clear image at night time or in low light conditions.

- Auto

In the Auto mode, the internal circuit will automatically decide the occasion to remove the IR cut filter according to the image brightness level.

- On

Select the item to remove the IR cut filter.

- Off

Select the item to disable IR function.

### 4.5.11 Camera - Miscellaneous Setups Menu 2

The Camera Misc 2 Setting can be found under this path: **PTZ> Camera—Misc 2.**

In the Camera—Misc (Miscellaneous) Setups Menu 2, users can set up various functions such as Wide Dynamic Range (WDR), Image Inverse, Auto Calibration, 2D / 3D Noise Reduction (2DNR / 3DNR) and Image Stabilizer.

**WDR**

The WDR function is especially effective in environment with extreme contrast. Click on <Set> to save the setting.

**Inverse**

When the Image Inverse function is activated, the image will be inversed vertically and horizontally. Click on <Set> to save the setting.

**Auto Calibration**

With the Auto Calibration function, the Network Speed Dome Camera calibrates when the deviation of dome pivot is detected. Click on <Set> to save the setting.

**2D / 3DNR**

With the 2D / 3D Noise Reduction function, the processor analyzes pixel by pixel and frame by frame to eliminate environmental noise signal so that the highest quality image can be produced even in low light conditions. In comparison with 2DNR, 3DNR generates better de-noising effects. Click on <Set> to save the setting.

**STABILIZER**

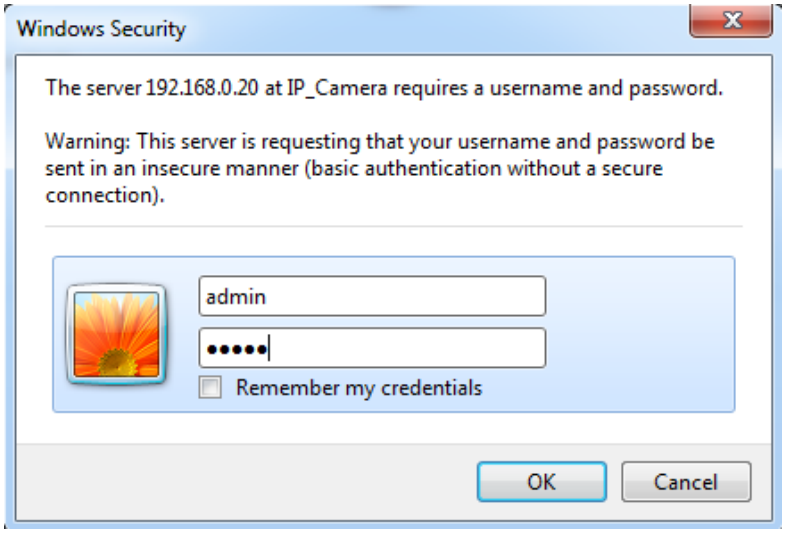
With the Image Stabilizer Function, the Speed Dome Camera can capture images that would otherwise be blurred due to the vibration. Users can select <ON> to turn on the Stabilizer. The default setting is <OFF>.

### 4.5.12 Camera - Default

On the Camera Default page, users can set the camera back to factory default settings simply by pressing the “Set Default” button.

## 4.6 Logout

Press the tab “Logout” on top of the page, and the login window will pop up. This enables login with another user name.


Windows Security
The server 192.168.0.20 at IP_Camera requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

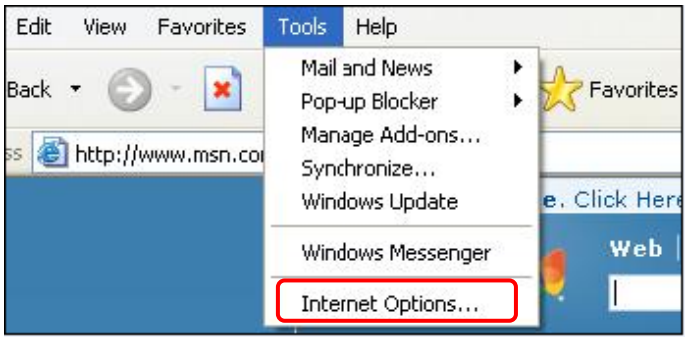
## Appendix A: Internet Security Settings

If ActiveX control installation is blocked, please either set Internet security level to default or change ActiveX controls and plug-ins settings.

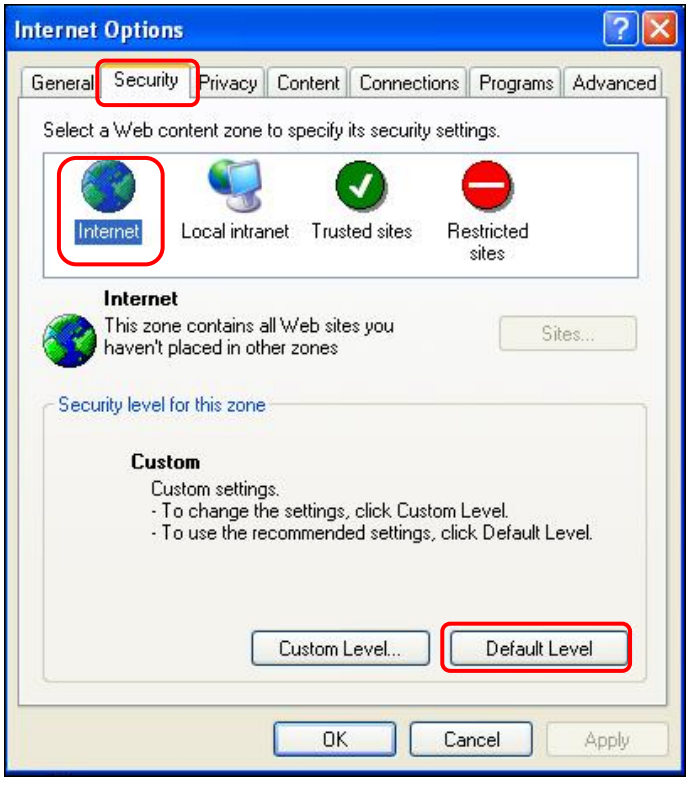
**Internet Security Level: Default**

**Step 1:** Start the Internet Explorer (IE).

**Step 2:** Select <Tools> from the main menu of the browser. Then Click <Internet Options>.




**Step 3:** Click the <Security> tab, and select <Internet>.

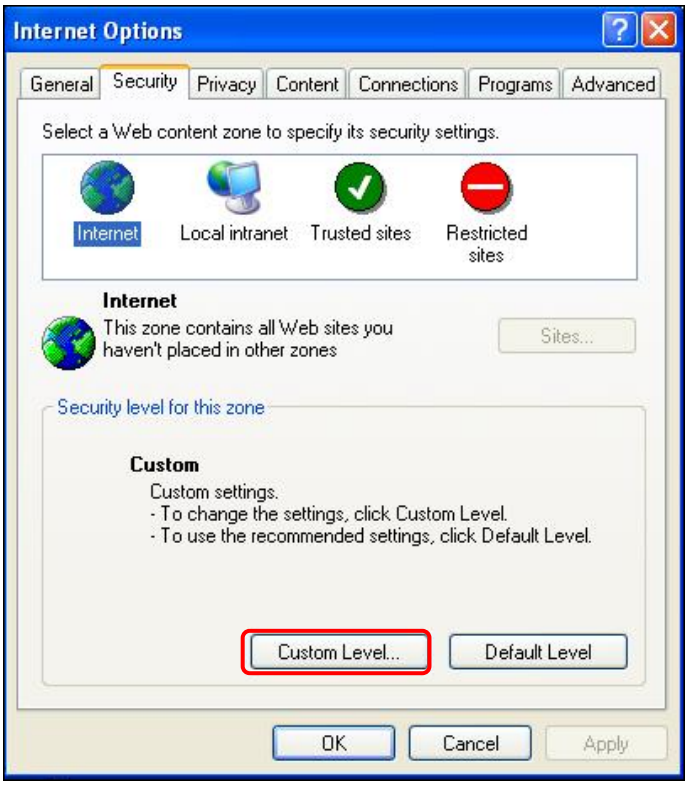



**Step 4:** Scroll down the page and press “Default Level” (see the figure above) and click “OK” to confirm the setting. Close the browser window, and open a new one later when accessing the IP Camera.

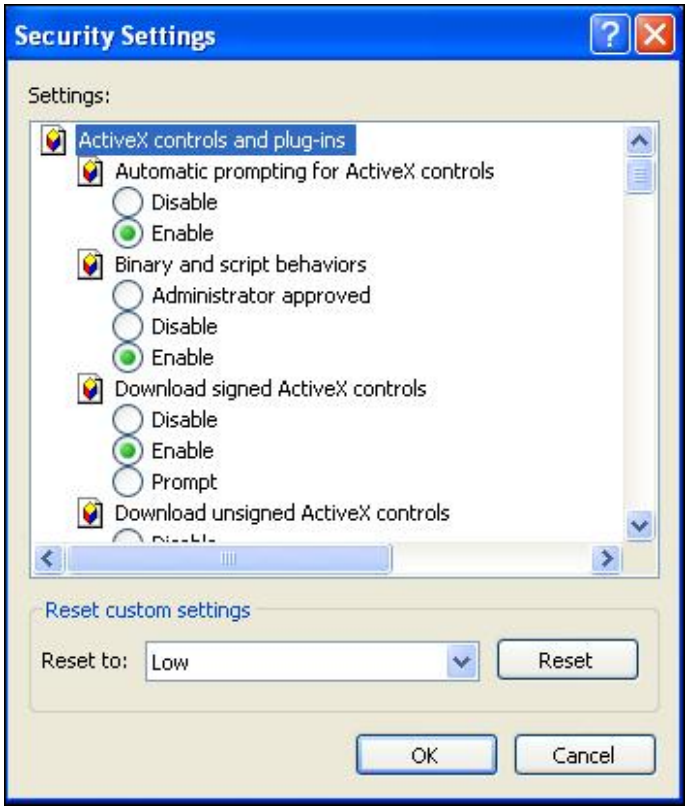
**ActiveX Controls and Plug-ins Settings**

**Step 1~3:** Refer to the previous section above.

**Step 4:** Scroll down the page and press “Custom Level” (see the figure below) to change ActiveX controls and plug-ins settings.




The Security Settings screen is displayed below:




**Step 5:** Under "ActiveX controls and plug-ins", set ALL items (as listed below) to <Enable> or <Prompt>.

**ActiveX controls and plug-ins settings:**

1. Automatic prompting for ActiveX controls
2. Binary and scrip behaviors
3. Download signed ActiveX controls
4. Download using ActiveX controls
5. Initialize and script ActiveX not marked as safe
6. Run ActiveX controls and plug-ins
7. Script ActiveX controls marked safe for scripting

**Step 6:** Click <OK> to accept the settings and close the <Security> screen.

**Step 7:** Click <OK> to close the Internet Options screen.

**Step 8:** Close the browser window, and restart a new one later for accessing the IP Camera.

## Appendix B: Video Format

In the Video Resolution section, select a preferred resolution setting. The available Video Resolution for MJPEG & H.264 format includes:

### Quad Streams

| H.264 + H.264 + H.264 + H.264 / MJPEG | | | |
|---|---|---|---|
| **H.264-1** | **H.264-2** | **H.264-3** | **H.264-4 / MJPEG** |
| 720 x 480 (60 fps) | 720 x 480 (30 fps) | 720 x 480 (30 fps) | 720 x 480 (30 fps) |
| | | 720 x 480 (30 fps) | 640 x 480 (30 fps) |
| | | 640 x 480 (30 fps) | 640 x 480 (30 fps) |
| | 720 x 480 (60 fps) | 720 x 480 (30 fps) | 325 x 240 (30 fps) |
| | | 640 x 480 (30 fps) | 325 x 240 (30 fps) |
| | | 352 x 240 (60 fps) | 325 x 240 (60 fps) |
| | 640 x 480 (60 fps) | 640 x 480 (30 fps) | 640 x 480 (30 fps) |
| | | 640 x 480 (30 fps) | 352 x 240 (30 fps) |
| | | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| | 352 x 240 (60 fps) | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| 640 x 480 (60 fps) | 640 x 480 (60 fps) | 640 x 480 (30 fps) | 640 x 480 (30 fps) |
| | | 640 x 480 (60 fps) | 352 x 420 (30 fps) |
| | | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| | 352 x 240 (60 fps) | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| 352 x 240 (60 fps) | 352 x 240 (60 fps) | 352 x 240 (60 fps) | 352 x 240 (60 fps) |

### Triple Streams

| H.264-1 + H.264-2 + H.264-3 / MJPEG | | |
|---|---|---|
| **H.264-1** | **H.264-2** | **H.264-3 / MJPEG** |
| 720 x 480 (60 fps) | 720 x 480 (30 fps) | 720 x 480 (30 fps) |
| | | 640 x 480 (30 fps) |
| | | 352 x 240 (60 fps) |
| | 640 x 480 (60 fps) | 640 x 480 (60 fps) |
| | | 352 x 420 (60 fps) |
| | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| 340 x 480 (60 fps) | 640 x 480 (60 fps) | 640 x 480 (60 fps) |
| | | 352 x 240 (60 fps) |
| | 352 x 240 (60 fps) | 352 x 240 (60 fps) |
| 352 x 240 (60 fps) | 352 x 240 (60 fps) | 352 x 240 (60 fps) |

### Dual Streams

| H.264-1 + H.264-2 / MJPEG | | |
|---|---|---|
| **H.264-1** | **H.264-2 / MJPEG** | **BNC SUPPORT** |
| 720 x 480 (60 fps) | 720 x 480 (60 fps) | - |
| | 640 x 480 (60 fps) | - |
| | 365 x 240 (60 fps) | - |
| 640 x 480 (60 fps) | 640 x 480 (60 fps) | - |
| | 352 x 240 (60 fps) | - |
| 352 x 240 (60 fps) | 352 x 240 (60 fps) | - |

### Single Stream

| H.264-2 / MJPEG Only | BNC SUPPORT |
|---|---|
| 720 x 480 (60 fps) | - |
| 640 x 480 (60 fps) | - |
| 352 x 240 (60 fps) | - |

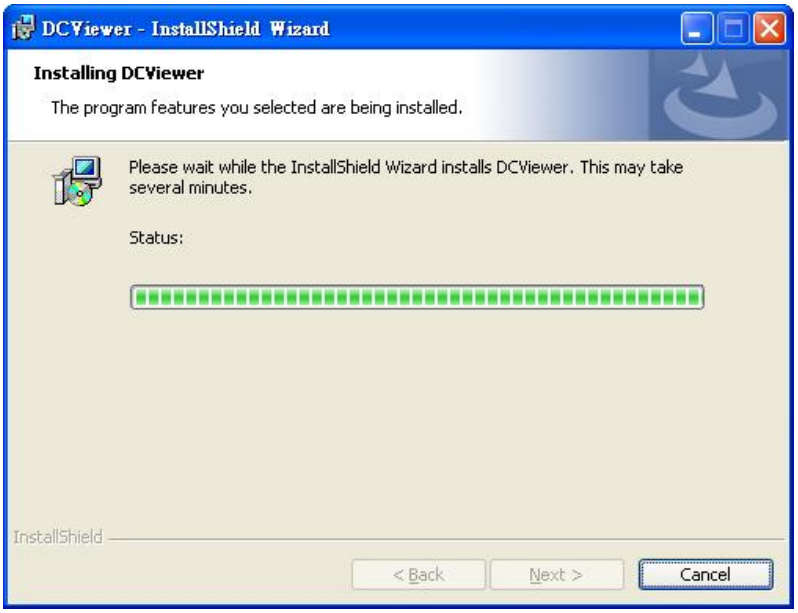
## Appendix C: DC Viewer Download Procedure

The procedure of DC Viewer software download is specified as follows.

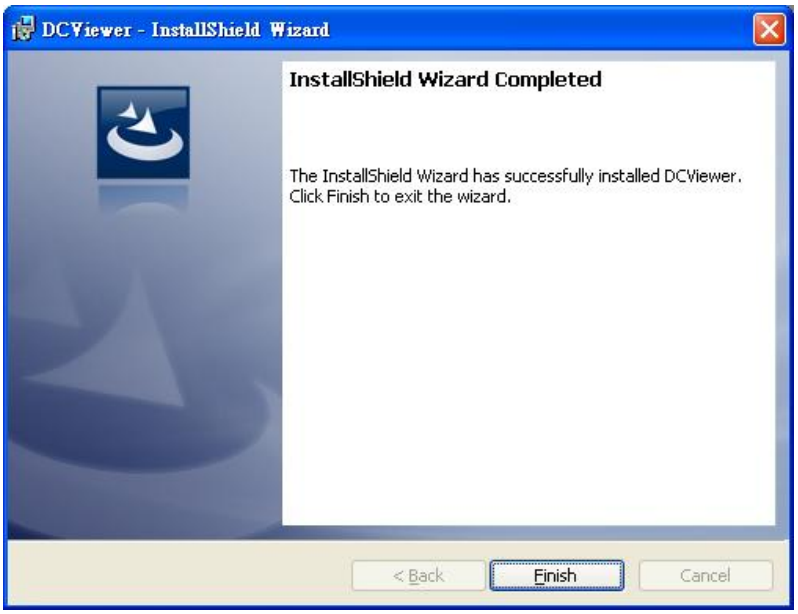
**Step 1:** On the DC Viewer installation page, click “Next” for starting installing.

DCViewer - InstallShield Wizard
Welcome to the InstallShield Wizard for DCViewer
The InstallShield(R) Wizard will install DCViewer on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

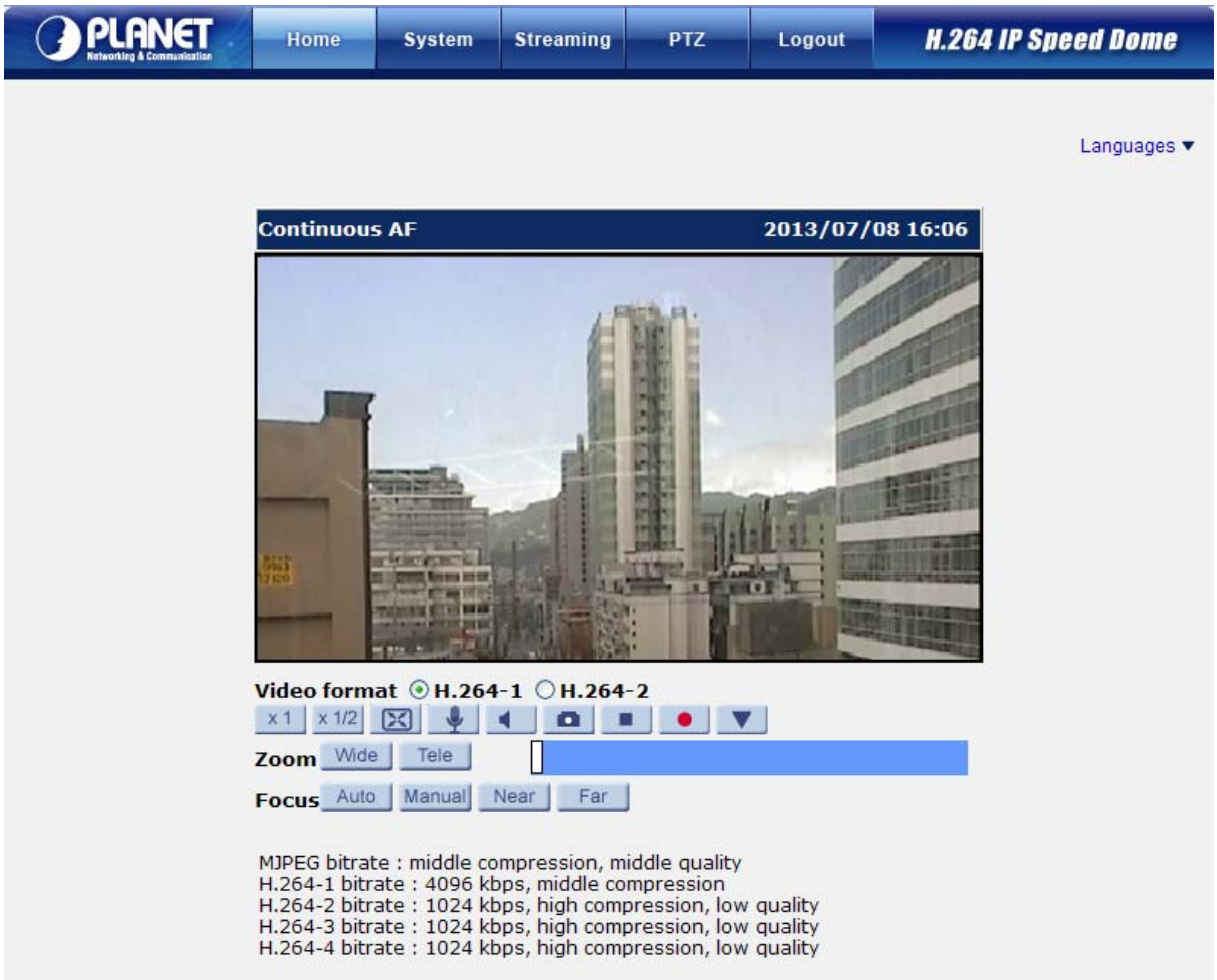
**Step 2:** Setup starts. Please wait for a while until the loading bar runs out.


DCViewer - InstallShield Wizard
Installing DCViewer
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs DCViewer. This may take several minutes.
Status:
InstallShield
< Back
Next >
Cancel

**Step 3:** Click “Finish” to close the DC Viewer installation page.


DCViewer - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed DCViewer. Click Finish to exit the wizard.
< Back
Finish
Cancel

Then, the IP Camera’s Home page will display as follows:



## Appendix D: Delete the Existing DC Viewer

For users who have installed the DC Viewer in the PC previously, please first remove the existing DC Viewer from the PC before accessing to the IP Camera.

**Deleting the DC Viewer**

In the Windows <Start Menu>, activate <Control Panel>, and then double click on <Add or Remove Programs>. On the <Currently installed programs> list, select <DC Viewer> and click on the button <Remove> to uninstall the existing DC Viewer.

**Deleting Temporary Internet Files**

To improve browser performance, it is suggested to clean up the all the files in the Temporary Internet Files. The procedure is as follows:

**Step 1:** Click on the <Tools> tab on the menu bar and select <Internet Options>.

**Step 2:** Click on the <Delete> button under <Browsing history> section. Then click on the <Delete Files> button under the <Temporary Internet files> section.

**Step 3:** A confirmation window will pop up. Click on <Yes> to start deleting the files.

## Appendix E: Frequently Asked Questions

**Q1** **[ICA-H652] How can I know the IP address of IP camera?**

**Ans:** The default IP address is 192.168.0.20, and you could use the **Device Search** utility on the bundled CD to obtain the current IP address of IP camera. Please refer to the user's manual for more detailed information.

**Q2** **[ICA-H652] How to supply power to IP Camera?**

To power up the Camera, users could choose either High power over Ethernet or AC 24V. To use High power over Ethernet, please connect the Ethernet cable to the Camera's Ethernet Port and plug the other end of the cable into an IEEE 802.3at 60W High Power over Ethernet (HPoE) injector. To use AC 24V, please plug the AC 24V cable into the Camera's Power Connector to power up the Camera.

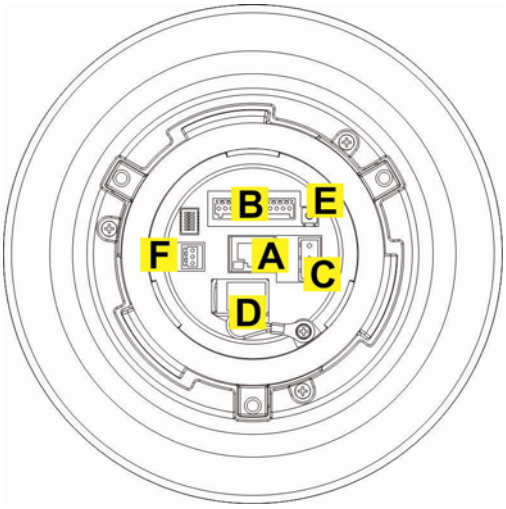
**Ans:** Please kindly check the pin definition of the Power Connector listed above before connecting to the power source. The AC24V power source should be connected to the **first** and **third** pin. The unit might be damaged with wrong connection.

| Pin | Definition |
|---|---|
| 1 | AC 24_1 |
| 2 | FG |
| 3 | AC 24_2 |

**Q3** **[ICA-H652] How to reset IP camera to default setting?**

To press the E button over 5 seconds at the camera body. Then all of the settings including network parameters will be back to factory defaults.

**Ans:**



| Q4 | **[ICA-H652] After upgrading firmware, why can't I see the MJPEG video format via web browser?** |
|---|---|

**Ans:**

That's because the system comes with the newer video format, and the PC needs to install the newer DC Viewer software to enable to see video on PC properly.

Please go to "Control Panel -> Add or Remove Programs" to remove old DC Viewer software first. Then connect to IP camera via web browser and it will prompt to install the new DC Viewer software in the PC.

# EC Declaration of Conformity

For the following equipment:

*Type of Product: H.264 36x Outdoor Speed Dome Internet Camera (NTSC/PAL)
*Model Number: ICA-H652-NT/PA

* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231,.Hsin Tien, Taiwan (R.O.C.)

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC,).
For the evaluation regarding the Electromagnetic Compatibility, the following standards were applied:

| | |
|---|---|
| EN 55022 | (2006 + A1: 2007, Class A) |
| EN 61000-3-2 | (2006) |
| EN 61000-3-3 | (2008) |
| EN 50130-4 | (1995 + A1: 1998 + A2: 2003) |
| IEC 61000-4-2 | (1995 + A1: 1998 + A2: 2001) |
| IEC 61000-4-3 | (2006 + A1: 2008) |
| IEC 61000-4-4 | (2004) |
| IEC 61000-4-5 | (2006) |
| IEC 61000-4-6 | (2007) |
| IEC 61000-4-11 | (2004) |

**Responsible for marking this declaration if the:**

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

**Authorized representative established within the EU (if applicable):**

**Company Name:** **Planet Technology Corp.**

**Company Address:** **10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan(R.O.C.)**

**Person responsible for making this declaration**

**Name, Surname** **Jonas Yang**

**Position / Title :** **Product Manager**

| | | |
|---|---|---|
| **Taiwan** | **4th Jan., 2011** | |
| *Place* | *Date* | *Legal Signature* |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